Pioneer

Service Manual

ORDER NO.
RRV3870

DVD 5.1 CH SURROUND SYSTEM

HTZ-LX61DV

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Region No.	Remarks
HTZ-LX61DV	WLPWXJ	AC 220 V to 240 V	3	

This product is component of system.

Component	System	Service Manual	Remarks
DVD 5.1CH SURROUND SYSTEM	HTZ-LX61DV/WLPWXJ	RRV3870	This manual
SPEAKER SYSTEM	SSP-LX61/XTM/E	RRV3876	
DVD/CD RECEIVER	XV-LX61DV/WLPWXJ	RRV3869 (RRV3868)	

PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS (USA) INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
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PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 253 Alexandra Road, #04-01, Singapore 159936

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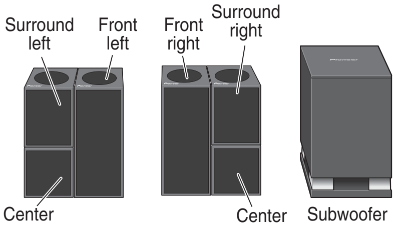
Service Manual



Surround left
Front left
Front right
Surround right
Center
Center
Subwoofer

SSP-LX61

ORDER NO.
RRV3876

SPEAKER SYSTEM

SSP-LX61 /XTM/E

PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
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1. REASSEMBLY AND DISASSEMBLY PRECAUTIONS

1.1 FRONT SPEAKER

- The grille is attached to the cabinet by 8 external screws. To detach it, unfasten those screws.

- The 2 speaker units (52mm) is attached together with grille assy to the cabinet by 8 external screws. To detach it, first unfasten those screws. Next remove the cabinet. Then remove the cable. When attaching it, face its terminal right side.

- The top panel is attached to the cabinet by press-fitting. To detach, pry it open by inserting a flat head screwdriver into back side hole. When attaching it, press-fit it carefully it the direction of the panel.

- The top grille is attached to the speaker unit (Tw) by press-fitting. To detach it, first pry top panel open by inserting a flat head screwdriver into back side hole. Then detach by pulling the top grille toward you. When attaching it, press-fit it carefully it the direction of the top grille.

- The speaker unit (Tw) is attached to the cabinet by 2 external screws. To detach it, first pry top panel open by inserting a flat head screwdriver into back side hole. Next detach by pulling the top grille toward you. Next unfasten the screws. Then remove the cable. When attaching it, face its (-) terminal front side.

1.2 CENTER SPEAKER

- The grille is attached to the cabinet by 4 external screws. To detach it, unfasten those screws.

- The speaker units (52mm) is attached together with grille assy to the cabinet by 4 external screws. To detach it, first unfasten those screws. Next remove the cabinet. Then remove the cable. When attaching it , face its terminal right side.

1.3 SURROUND SPEAKER

- The grille is attached to the cabinet by 4 external screws. To detach it, unfasten those screws.

- The speaker units (52mm) is attached together with grille assy to the cabinet by 4 external screws. To detach it, first unfasten those screws. Next remove the cabinet. Then remove the cable. When attaching it , face its terminal right side.

- The top panel is attached to the cabinet by press-fitting. To detach, pry it open by inserting a flat head screwdriver into back side hole. When attaching it, press-fit it carefully it the direction of the top panel.

- The top grille is attached to the speaker unit (Tw) by press-fitting. To detach it, first pry top panel open by inserting a flat head screwdriver into back side hole. Then detach by pulling the top grille toward you. When attaching it, press-fit it carefully it the direction of the grille.

- The speaker unit (Tw) is attached to the cabinet by 2 external screws. To detach it, first pry top panel open by inserting a flat head screwdriver into back side hole. Next detach by pulling the top grille toward you. Next unfasten the screws. Then remove the cable. When attaching it, face its (-) terminal front side.

1.4 SUBWOOFER

- The stand board is attached to the cabinet by 4 external screws. To detach it, unfasten those screws.

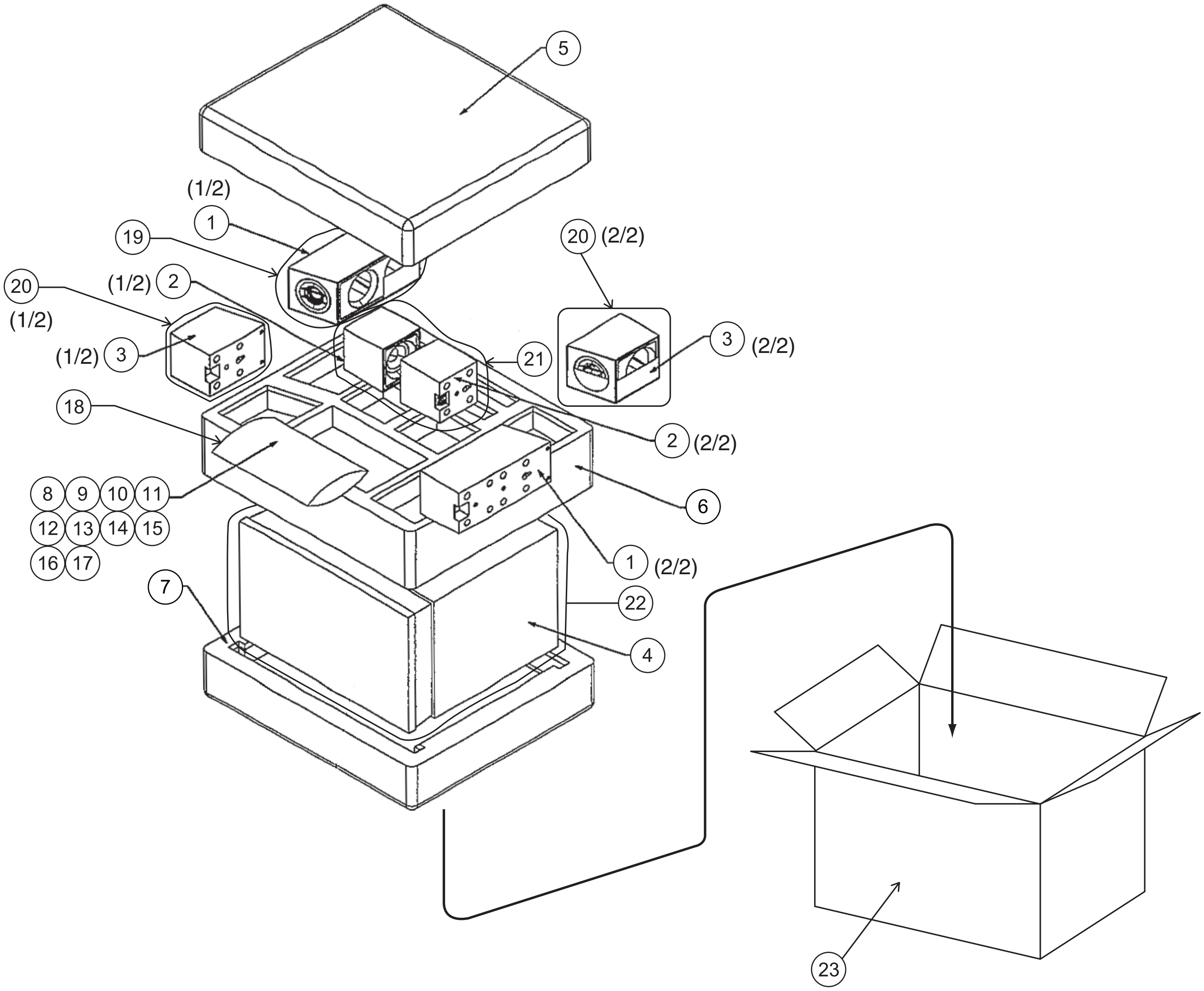
- The plastic foot L & R is attached to the cabinet by 4 external screws. Then it is attached to the cabinet by its bosses applied with adhesive. To detach it, first remove the stand board. Next detach by pulling it toward you. To attach it, apply adhesive to the holes on the bottom board. Then press it to the cabinet.

- The speaker unit is attached to the cabinet by 4 external screws. To detach it, first remove the stand board. Then unfasten those screws. When attaching it , face its terminal toward the acoustic felt.

2. EXPLODED VIEWS AND PARTS LIST

NOTES: ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*

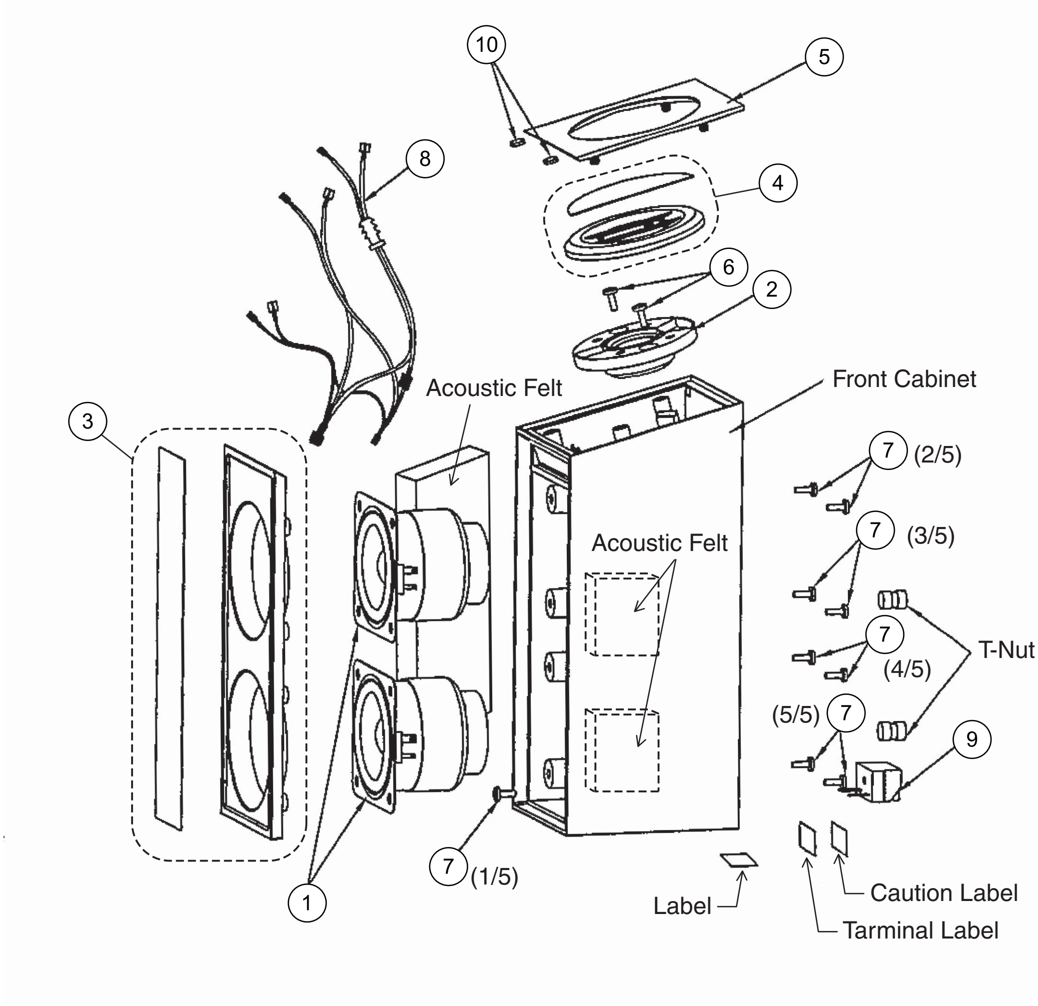
2.1 PACKING



PACKING Parts List

Mark	No.	Description	Part No.
	1	Speaker (for Front)	- - - - - - - -
	2	Speaker (for Center)	- - - - - - - -
	3	Speaker (for Surround)	- - - - - - - -
	4	Speaker (for Subwoofer)	- - - - - - - -
	5	Protector (Top)	ITP70005-0000
	6	Protector (Center)	ITP70006-1000
	7	Protector (Bottom)	ITP70007-2000
	8	Spiral Tube	AAA70001-0001
	9	Non Skid Pad (for Subwoofer)	DUF70002-0001
	10	Non Skid Pad (for Satelite)	IVF70005-0010
	11	Bracket Assy	ASW70001-0011
	12	Screw (Accessory Bracket)	NSS70002-0001
	13	Speaker Wire (for Frt L, R Set)	VWW70006-0001
	14	Speaker Wire (for Cnt)	VWW70007-0001
	15	Speaker Wire (for Sur L, R Set)	VWW70008-0001
	16	Speaker Wire (for SWF 4M)	VWW70009-0001
	17	Speaker Wire (for SWF 10M)	VWW70010-0001
	18	Polyethylene Bag	IVB70007-0000
	19	Poly Sheet (for Front SP)	IVB70004-1101
	20	Poly Sheet (for Surround SP)	IVB70005-1101
	21	Poly Sheet (for Center SP)	IVB70006-1101
	22	Protection Sheet (for Subwoofer)	IVM70004-0001
	23	Packing Case	ICC70ADV-000E

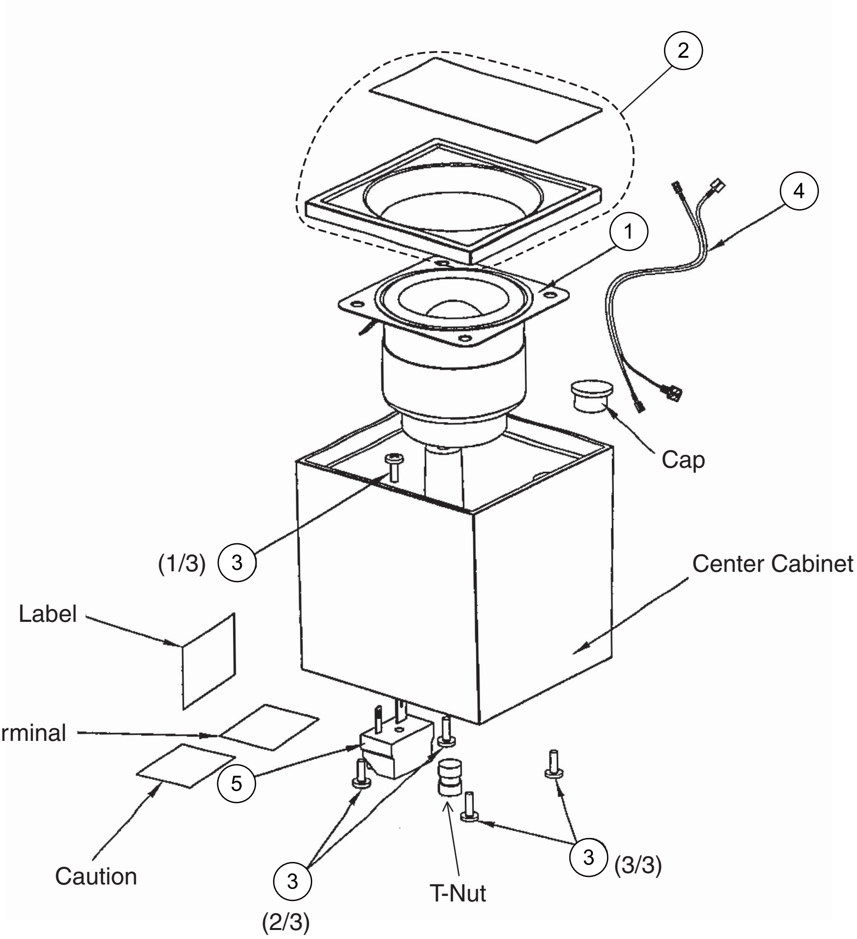
2.2 SPEAKER SYSTEM (FRONT)


10
5
8
4
6
2
Acoustic Felt
Front Cabinet
3
7 (2/5)
7 (3/5)
Acoustic Felt
7
T-Nut
(4/5)
(5/5) 7
9
7 (1/5)
1
Label
Caution Label
Tarminal Label

Speaker System (Front) Parts List

Mark	No.	Description	Part No.
	1	Speaker (for Front)	B52MC45-54F
	2	Speaker (for Front)	FK26AP32-54F
	3	Grille Assy (for Front)	ASW70001-0000
	4	Grille Assy (for Front)	ASW70002-0100
	5	Cosmetic Panel (for Front)	BRP7004-1011
	6	Screw (for Tweeter)	NSS70801-0701
	7	Screw (for Cabinet)	NSS70207-0701
	8	Connecting Cord (for Front)	VWW7003-2200
	9	Input Terminal (for Front)	CJC70002-0101
	10	Felt (for Front Top Panel)	IVF70007-0010

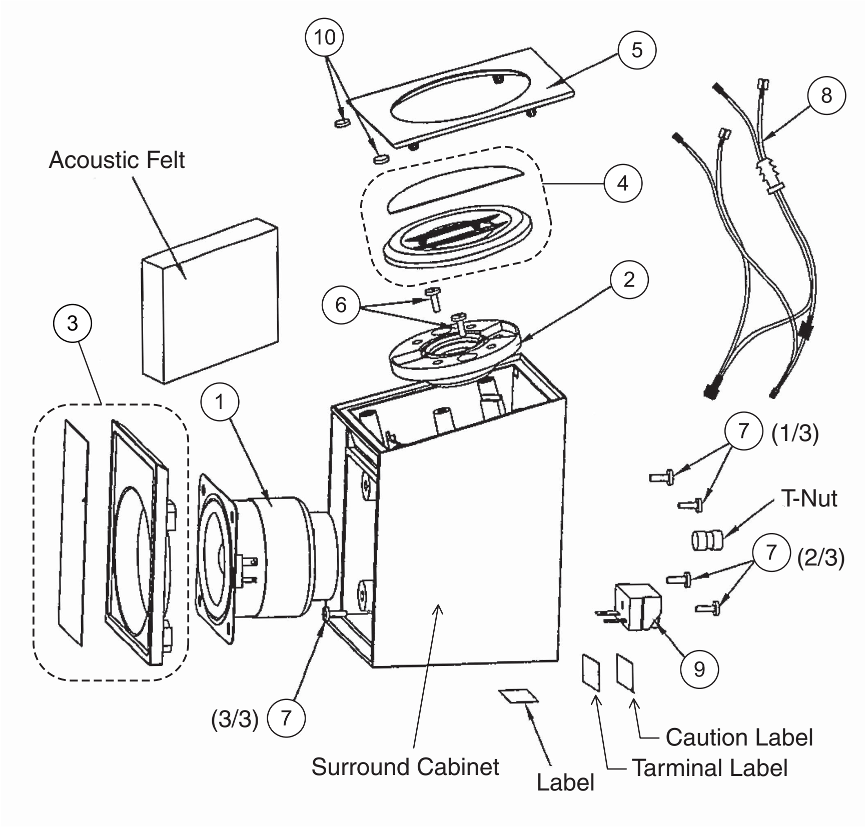
2.3 SPEAKER SYSTEM (CENTER)


2
4
1
Cap
(1/3) 3
Center Cabinet
Label
L-Tarminal
5
Caution
3
(2/3)
T-Nut
3 (3/3)

Speaker System (CENTER) Parts List

Mark	No.	Description	Part No.
	1	Speaker (Center)	B52MC45-54F
	2	Grille Assy (for Center)	ASW70003-0000
	3	Screw (for Cabinet)	NSS70207-0701
	4	Connecting Cord (for Center)	VWW7005-2200
	5	Input Terminal (for Center)	CJC70002-0101

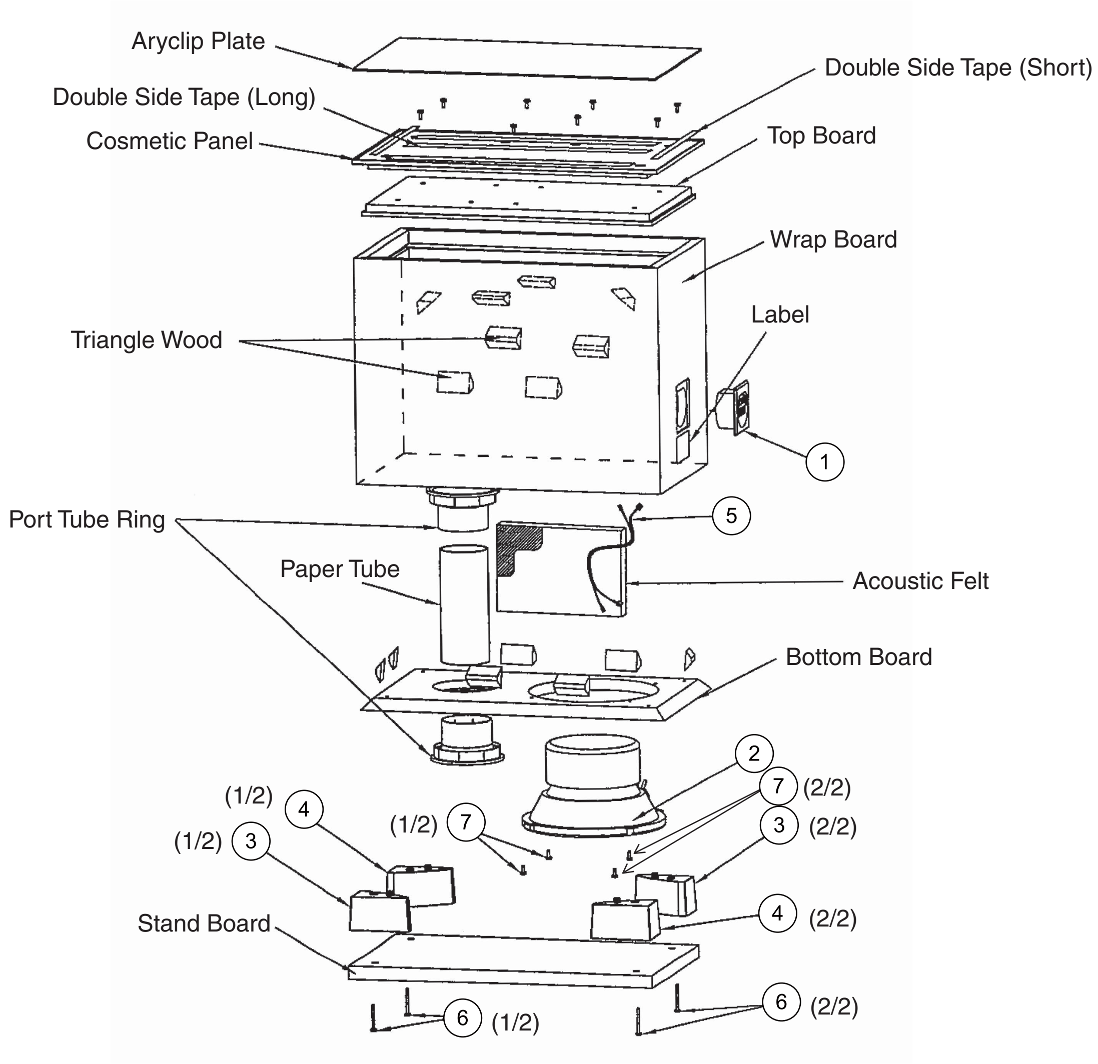
2.4 SPEAKER SYSTEM (SURROUND)


10
5
8
Acoustic Felt
4
2
6
3
1
7 (1/3)
T-Nut
7 (2/3)
9
(3/3) 7
Caution Label
Surround Cabinet
Tarminal Label
Label

Speaker System (SURROUND) Parts List

Mark	No.	Description	Part No.
	1	Speaker (for Surround)	B52MC45-54F
	2	Speaker (for Surround)	FK26AP32-54F
	3	Grille Assy (for Front)	ASW70002-0000
	4	Grille Assy (for Top)	ASW70002-0100
	5	Cosmetic Panel	BRP7004-1011
	6	Screw (for Tweeter)	NSS70801-0701
	7	Screw (for Cabinet)	NSS70207-0701
	8	Connecting Cord (for Surround)	VWW7004-2200
	9	Input Terminal (for Surround)	CJC70002-0101
	10	Felt (for Front Top Panel)	IVF70007-0010

2.5 SPEAKER SYSTEM (SUBWOOFER)

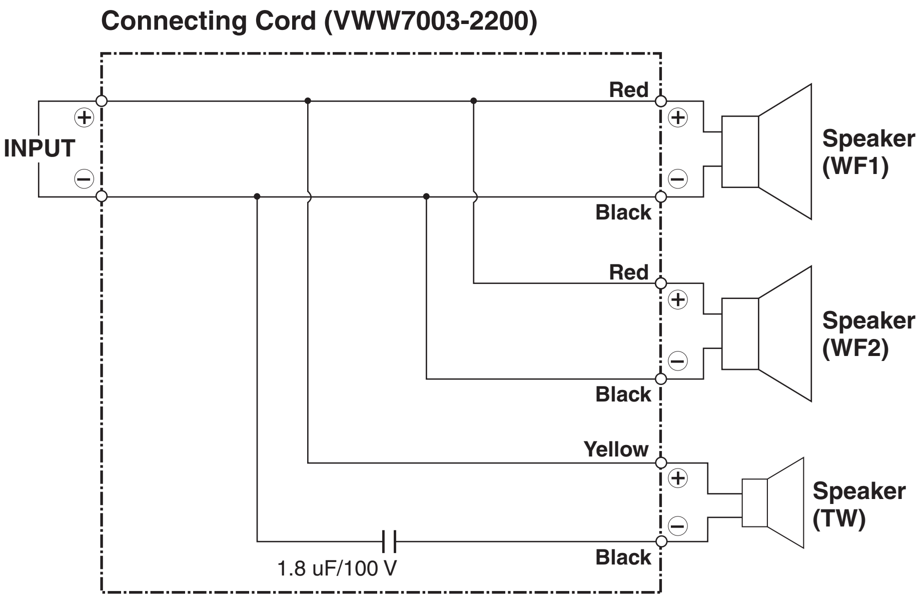

Aryclip Plate
Double Side Tape (Short)
Double Side Tape (Long)
Cosmetic Panel
Top Board
Wrap Board
Label
Triangle Wood
1
Port Tube Ring
5
Paper Tube
Acoustic Felt
Bottom Board
2
(1/2)
4
7
(2/2)
(1/2)
7
3
(2/2)
(1/2)
3
Stand Board
4
(2/2)
6
(2/2)
6
(1/2)

Speaker System (SUBWOOFER) Parts List

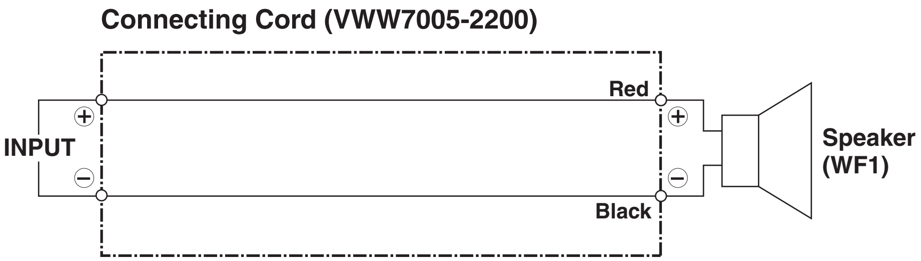
Mark	No.	Description	Part No.
	1	Input Terminal (for Subwoofer)	CJC70003-0101
	2	Speaker (for Subwoofer)	T16LU90-51C
	3	Plastic Foot (R)	BRF70005-1011
	4	Plastic Foot (L)	BRF70004-1011
	5	Connecting Cord (for Subwoofer)	VWW7006-2200
	6	Screw (for Subwoofer Base)	NSS70005-0001
	7	Screw (for Subwoofer Unit)	NSS71209-0701

3. SCHEMATIC DIAGRAM

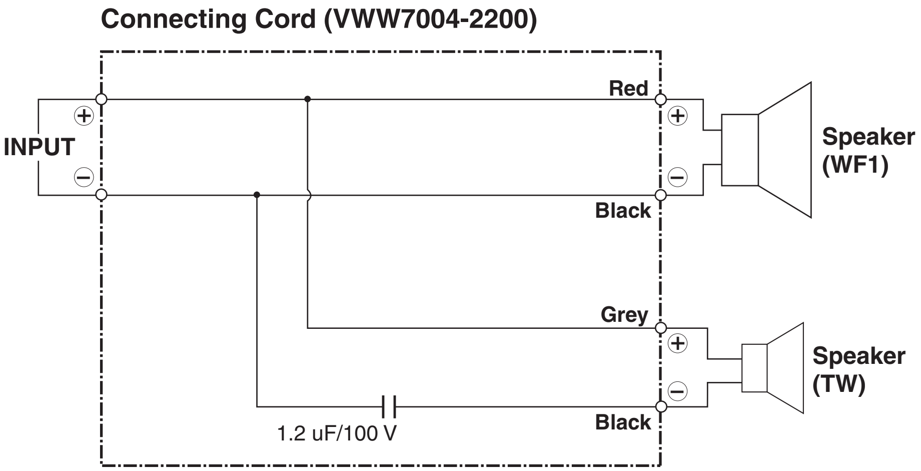
3.1 NETWORK ASSY (FRONT)


Connecting Cord (VWW7003-2200)
INPUT
+
−
Red
Black
Speaker
(WF1)
Red
Black
Speaker
(WF2)
Yellow
Black
Speaker
(TW)
1.8 uF/100 V

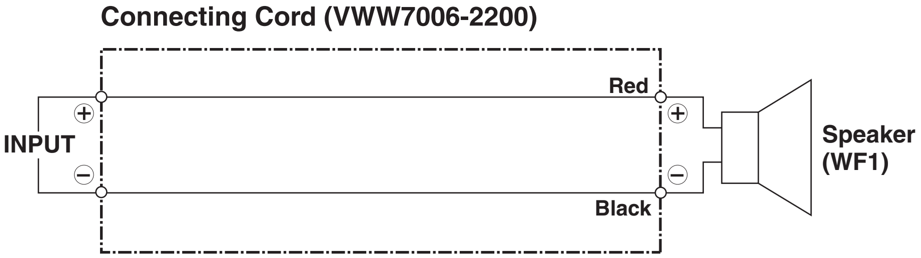
3.2 NETWORK ASSY (CENTER)


Connecting Cord (VWW7005-2200)
INPUT
+
−
Red
Black
Speaker
(WF1)

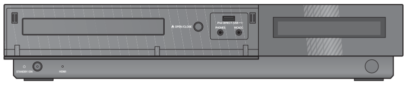
3.3 NETWORK ASSY (SURROUND)


Connecting Cord (VWW7004-2200)
INPUT
+
−
Red
Black
Grey
Black
1.2 uF/100 V
Speaker
(WF1)
Speaker
(TW)

3.4 NETWORK ASSY (SUBWOOFER)


Connecting Cord (VWW7006-2200)
INPUT
+
−
Red
Black
Speaker
(WF1)

Service Manual



XV-LX61DV

ORDER NO.
RRV3868

DVD/CD RECEIVER

XV-LX61DV

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Region No.	Remarks
XV-LX61DV	KUCXJ	AC 120 V	1	

For details, refer to "Important Check Points for good servicing".

PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
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SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains certain electrical parts contain chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols ■▭ (fast operating fuse) and/or ■▭ (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible ■▭ (fusible de type rapide) et/ou ■▭ (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

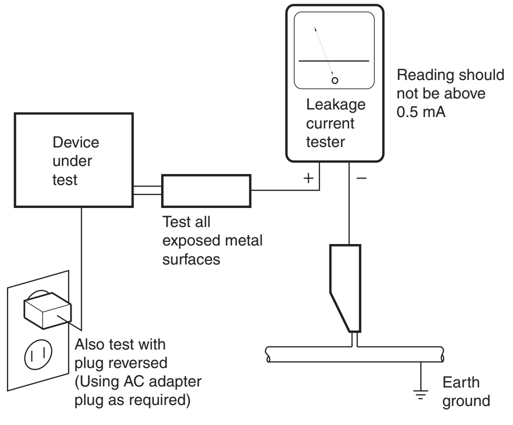
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.


Device under test
Leakage current tester
Reading should not be above 0.5 mA
+
−
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

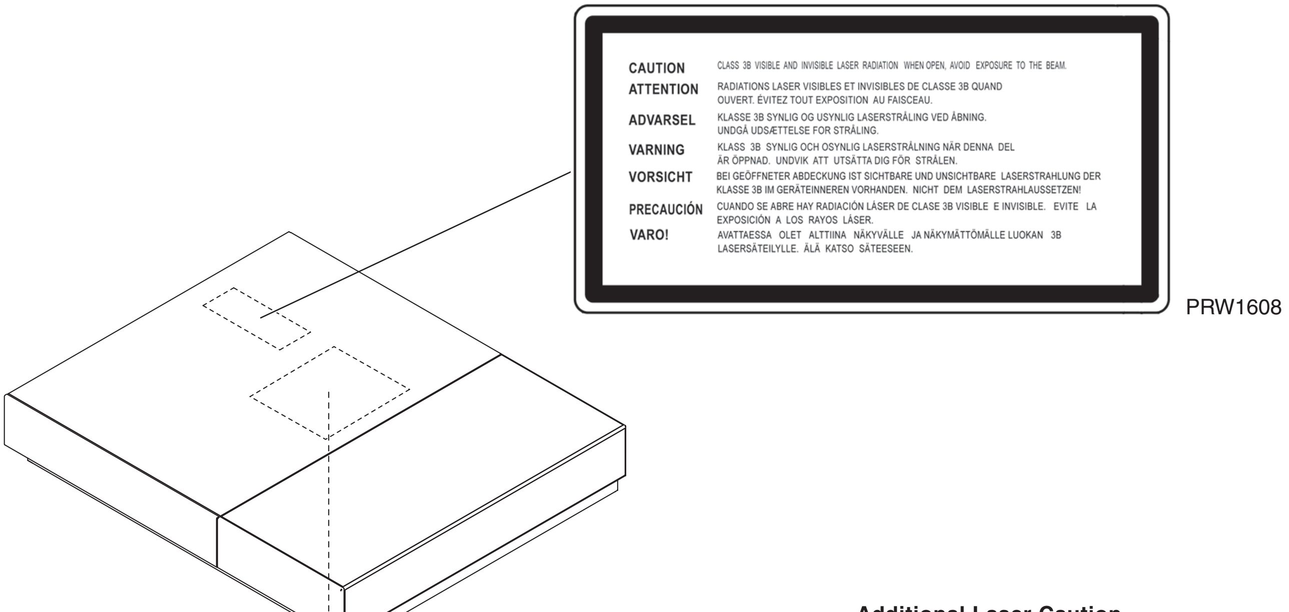
WARNING !

THE AEL (ACCESSIBLE EMISSION LEVEL) OF THE LASER POWER OUTPUT IS LESS THAN CLASS 1 BUT THE LASER COMPONENT IS CAPABLE OF EMITTING RADIATION EXCEEDING THE LIMIT FOR CLASS 1.
A SPECIALLY INSTRUCTED PERSON SHOULD DO SERVICING OPERATION OF THE APPARATUS.

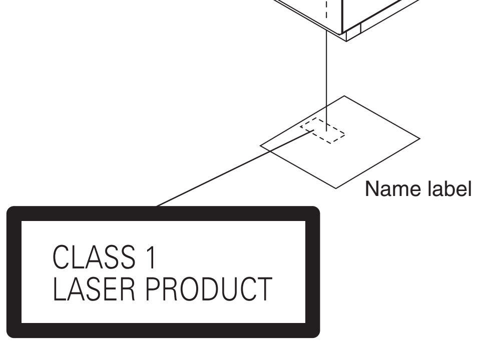
LASER DIODE CHARACTERISTICS

FOR DVD : MAXIMUM OUTPUT POWER : 5 mW
WAVELENGTH : 650 nm
FOR CD : MAXIMUM OUTPUT POWER : 5 mW
WAVELENGTH : 780 nm

LABEL CHECK



CAUTION CLASS 3B VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO THE BEAM.
ATTENTION RADIATIONS LASER VISIBLES ET INVISIBLES DE CLASSE 3B QUAND OUVERT. ÉVITEZ TOUT EXPOSITION AU FAISCEAU.
ADVARSEL KLASSE 3B SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARNING KLASS 3B SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. UNDVIK ATT UTSÄTTA DIG FÖR STRÅLEN.
VORSICHT BEI GEÖFFNETER ABDECKUNG IST SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG DER KLASSE 3B IM GERÄTEINNEREN VORHANDEN. NICHT DEM LASERSTRAHLAUSSETZEN!
PRECAUCIÓN CUANDO SE ABRE HAY RADIACIÓN LÁSER DE CLASE 3B VISIBLE E INVISIBLE. EVITE LA EXPOSICIÓN A LOS RAYOS LÁSER.
VARO! AVATTAESSA OLET ALTTIINA NÄKYVÄLLE JA NÄKYMÄTTÖMÄLLE LUOKAN 3B LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.



CLASS 1
LASER PRODUCT

Additional Laser Caution

1.
- Laser diode is driving with Q1307 (650 nm LD) and Q1308 (780 nm LD) on the 4IN1 MOD ASSY.
  Therefore, when short-circuit between the emitter and collector of these transistors or the base voltage is supplied for transistors turn on, the laser oscillates. (failure mode)
- In the test mode ∗ , there is the mode that the laser oscillates except for the disc judgment and playback. LD ON mode in the test mode oscillates with the laser forcibly.

2. When the cover is open, close viewing through the objective lens with the naked eye will cause exposure to the laser beam.

∗ : See page 35.

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol.
Please be sure to confirm and follow these procedures.

1. Product safety

Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification(addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris.
Soldering should be finished with the proper quantity. (Refer to the example)

④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs.
In addition, be sure that there are no pinched wires, etc.

⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages.
If you find a damaged power cord, please exchange it with a suitable one.

⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries.
Please pay attention to your surroundings and repair safely.

2. Adjustments

To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification.
Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts

Use grease and adhesives that are equal to the specified substance.
Make sure the proper amount is applied.

4. Cleaning

For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws

To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

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12. PCB PARTS LIST 123

1. SERVICE PRECAUTIONS

1.1 NOTES ON SOLDERING

- For environmental protection, lead-free solder is used on the printed circuit boards mounted in this unit.
  Be sure to use lead-free solder and a soldering iron that can meet specifications for use with lead-free solders for repairs accompanied by reworking of soldering.

- Compared with conventional eutectic solders, lead-free solders have higher melting points, by approximately 40 °C.
  Therefore, for lead-free soldering, the tip temperature of a soldering iron must be set to around 373 °C in general, although the temperature depends on the heat capacity of the PC board on which reworking is required and the weight of the tip of the soldering iron.

Do NOT use a soldering iron whose tip temperature cannot be controlled.

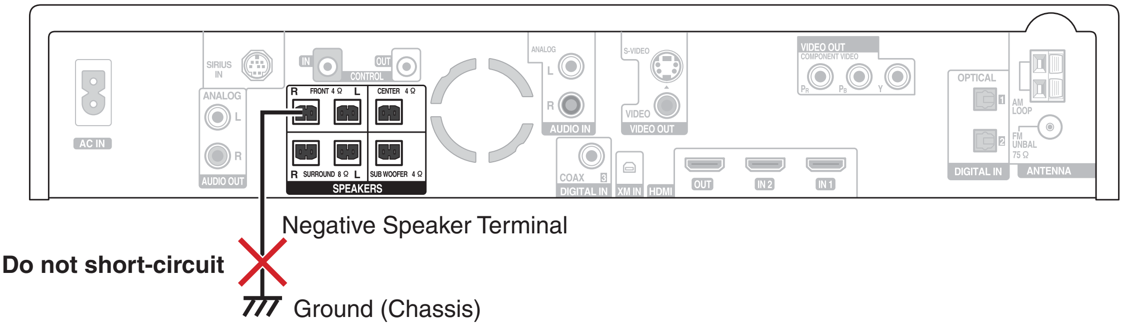
Compared with eutectic solders, lead-free solders have higher bond strengths but slower wetting times and higher melting temperatures (hard to melt/easy to harden).

The following lead-free solders are available as service parts:
- Parts numbers of lead-free solder:
  GYP1006 1.0 in dia.
  GYP1007 0.6 in dia.
  GYP1008 0.3 in dia.

1.2 CAUTION

NOTES ON BTL DRIVE

As a signal to drive the BTL is output from the negative speaker terminal, DO NOT short-circuit between the negative speaker terminal and ground, such as the chassis.
Do not short-circuit between the plus speaker terminal and ground, such as the chassis, too.


AC IN
SIRIUS IN
ANALOG
L
R
AUDIO OUT
IN
OUT
CONTROL
R FRONT 4 Ω L
CENTER 4 Ω
R SURROUND 8 Ω L
SUB WOOFER 4 Ω
SPEAKERS
ANALOG
AUDIO IN
S-VIDEO
VIDEO
VIDEO OUT
VIDEO OUT
COMPONENT VIDEO
PR PB Y
COAX 3
DIGITAL IN
XM IN
HDMI
OUT
IN 2
IN 1
OPTICAL
1
2
DIGITAL IN
AM LOOP
FM UNBAL 75 Ω
ANTENNA
Negative Speaker Terminal
Do not short-circuit
Ground (Chassis)

1.3 WHEN REPLACING DVD MECHA ASSY

[Removing the DVD MECHA Assy]
Before removing Pickup PCB and DVD PCB connector, short circuit the position shown in **Fig. 1** usinga soldering iron.
If you remove the DVD MECHA Assy with no soldering, the Laser may be damaged.

[Installing the DVD MECHA Assy]
Remove all the soldering on the short circuit position after the connection of Pickup PCB and DVD PCB connector.

NOTE

- Be sure to use lead-free solder and a soldering iron.
- When Soldering/Removing of solder, use the draw in equipment over the Pickup Unit to prevent the Flux smoke from it.

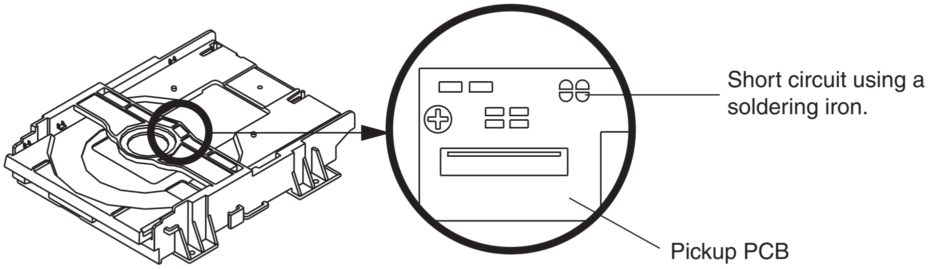

Short circuit using a soldering iron.
Pickup PCB

Fig. 1

1.4 DISC REMOVAL METHOD AT NO POWER SUPPLY

1. Slide the Rack Loading (White) toward the arrow direction by using a Minus driver to release the lock. **(Refer to Fig. 1)**
2. Manually open the Tray.

NOTE:
Please strongly pushing Rack Loading (White) to release the lock because the Tray doesn't go out easily.

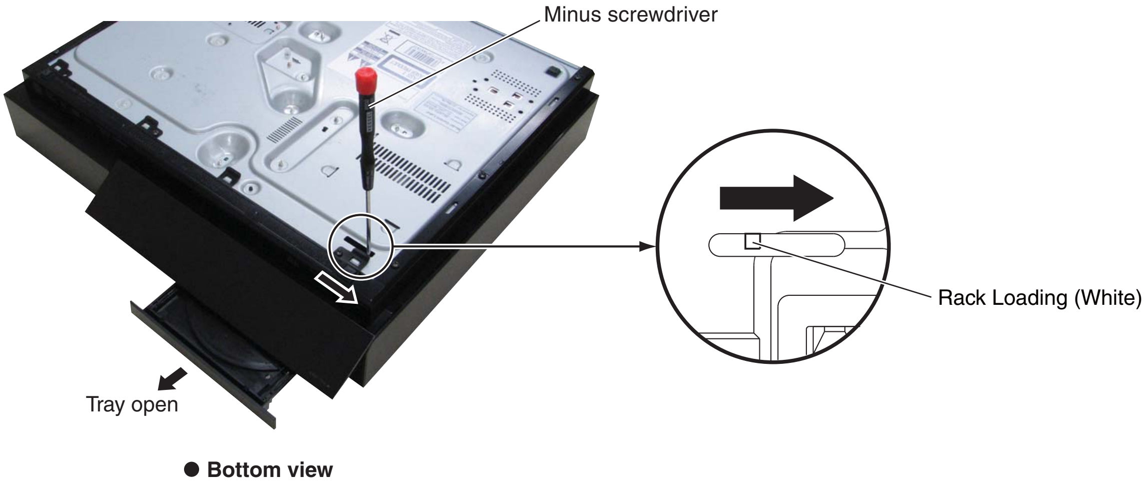

Minus screwdriver
Rack Loading (White)
Tray open
● Bottom view

Fig. 1

2. SPECIFICATIONS

2.1 SPECIFICATIONS, DISC/CONTENT FORMAT and ACCESORRIES

Specifications

• Amplifier section

Continuous Power Output (FTC):

Front, Center	**30 W per channel* (200 Hz to 20 kHz, 1.0 %** T.H.D., 4 Ω)**
Surround	**20 W per channel* (200 Hz to 20 kHz, 1.0 %** T.H.D., 8 Ω)**
Subwoofer	**30 W* (45 Hz to 200 Hz, 1.0 %** T.H.D., 4 Ω)**

* Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifiers.

** Measured by audio spectrum analyzer.

RMS Power Output:

Front, Center	100 W per channel (1 kHz, 10 % T.H.D., 4 Ω)
Surround	50 W per channel (1 kHz, 10 % T.H.D., 8 Ω)
Subwoofer	100 W (100 Hz, 10 % T.H.D., 4 Ω)

• Disc section

Type	DVD system, Video CD/Super VCD system and Compact Disc digital audio system
Wow and Flutter	Limit of measurement (±0.001 % W.PEAK) or less (JEITA)

• FM tuner section

Frequency range	87.5 MHz to 108 MHz
Antenna	75 Ω, unbalanced

• AM tuner section

Frequency range	530 kHz to 1700 kHz
Antenna	Loop antenna

• Input/Output section

HDMI terminal:	
Input	19-pin x2
Output	19-pin (5 V, 55 mA)
Audio input	Coaxial x1, Optical x2 (Digital) RCA (2-pin) (Analog)
Audio output	RCA (2-pin) (Analog)
Video output	RCA x1, S-Video x1
Component Video output	RCA (3-pin)
Control jack	Input x1, Output x1 (Mini jack)
MCACC input	Mini jack
iPod/USB connector	5 V, 500 mA
XM connector	4 pin (5 V, 370 mA)
SIRIUS connector	8 pin

• Miscellaneous

Power requirements	AC 120 V, 60 Hz
Power consumption	70 W
Power consumption in standby	0.5 W (HDMI Control ON) 0.25 W (HDMI Control OFF)
Dimensions	420 mm (W) x 80 mm (H) x 364 mm (D) (16 9/16 in. (W) x 3 3/16 in. (H) x 14 3/8 in. (D))
Weight	5.2 kg/11 lb. 8 oz.

Accessories

Remote control	1
AA/R6 dry cell batteries (to confirm system operation)	2
Video cable (yellow plugs)	1
AM loop antenna	1
FM antenna	1
Microphone (for Auto MCACC setup)	1
Power cord	1
Speaker cable adaptors (White, Red, Blue, Grey, Purple)	1 each
Cleaning cloth	1
Warranty card	1
Operating instructions	

Note

- Specifications and design subject to possible modification without notice, due to improvements.

Manufactured under license from Dolby Laboratories. Dolby, Pro Logic, and the double-D symbol are trademarks of Dolby Laboratories.

Manufactured under license under U.S. Patent #'s: 5,451,942; 5,956,674; 5,974,380; 5,978,762; 6,487,535 & other U.S. and worldwide patents issued & pending.
DTS and DTS Digital Surround are registered trademarks and the DTS logos and Symbol are trademarks of DTS, Inc.
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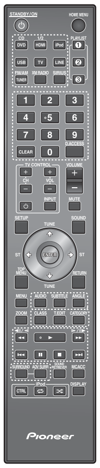
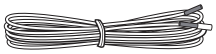
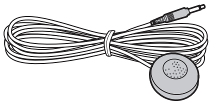
Accessories



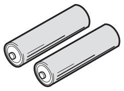
Remote control
(XXD3171)



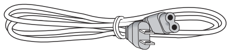
FM antenna
(ADH7030)



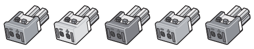
Microphone
(for Auto MCACC setup)
(APM7008)



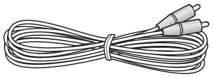
AA/R6 dry cell batteries
(to confirm system operation)



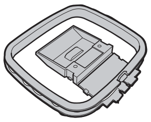
Power cord
(ADG7021)



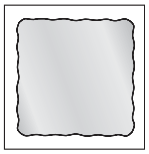
Speaker cable adaptors
(White : XKM3013,
Red : XKM3012,
Blue : XKM3015,
Grey : XKM3014,
Purple : XKM3017)



Video cable
(yellow plugs)
(XDE3046)



AM loop antenna
(ATB7013)



Cleaning cloth
(XED3008)

Disc/content format playback compatibility

This player is compatible with a wide range of disc types (media) and formats. Playable discs will generally feature one of the following logos on the disc and/or disc packaging. Note however that some disc types, such as recordable CD and DVD, may be in an unplayable format — see below for further compatibility information.

Please also note that recordable discs cannot be recorded using this unit.

DVD-Audio DVD-Video DVD-R DVD-RW

Audio CD Video CD CD-R CD-RW

Super Audio CD

Fujicolor CD

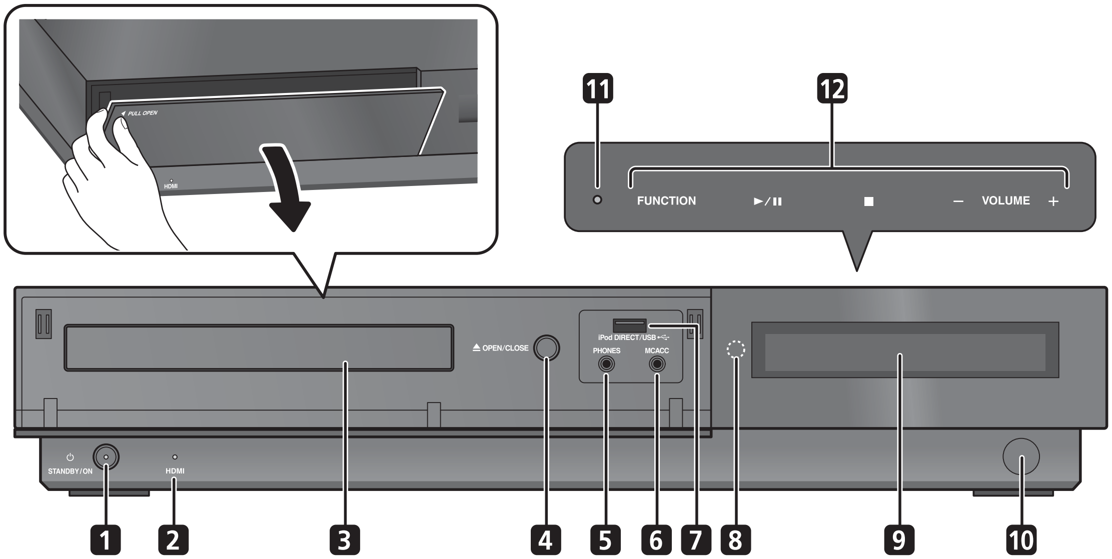
- This unit will play DVD+R/+RW discs.
- DVD is a trademark of DVD Format/Logo Licensing Corporation.
- is a trademark of FUJIFILM Corporation.
- Also compatible with KODAK Picture CD.

Super Video CD (Super VCD)

This unit supports the IEC's Super VCD standard.
Compared to the Video CD standard,
Super VCD offers superior picture quality, and
allows two stereo soundtracks to be recorded.
Super VCD also supports the widescreen size.

2.2 PANEL FACILITIES

Front panel



- Open the front door flap when inserting a disc or using the front panel connectors.

1 ⏻ STANDBY/ON
Switches the system on or into standby.

2 HDMI indicator (Red)
Lights when this system is connected to HDMI (HDCP) compatible component.

Also lights during initialization, after you plug this unit into an AC outlet.

3 Disc tray

4 ⏏ OPEN/CLOSE
Opens/closes the disc tray.

5 PHONES jack
Connect headphones.

6 MCACC jack
Use to connect the supplied microphone for the Auto MCACC setup.

7 iPod DIRECT/USB terminal
Use to connect your Apple iPod as an audio source, or connect a USB audio device for playback.

8 IR remote sensor

9 Front panel display

10 Motion sensor
When the front panel display is off, if Display Mode is set to **Auto Display**, the display will automatically turn on when movement is detected by the motion sensor.

11 Action indicator
Lights when a touch sensor operation is performed.

12 Touch sensor
Touch sensor is on top of the unit.

Lightly touch the displayed words or symbols to operate controls.

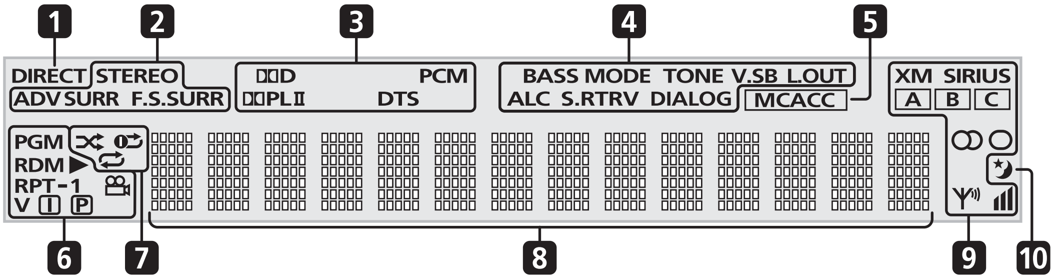
FUNCTION
Selects the source you want to listen to (**Digital 1** to **Digital 3**, **Analog**, **DVD/CD**, **iPod**, **USB**, **HDMI 1** or **HDMI 2**).

►/II
Starts/pauses playback.

■
Stops playback.

VOLUME +/–
Use to adjust the volume.

Display



1 DIRECT

Lights when Direct Sound is selected (i.e.Effective Sound is off).

2 Listening mode indicators

STEREO
Lights when the Stereo mode is selected or when a stereo source is being played back in the Auto listening mode.

ADV SURR
Lights when one of the Advanced Surround listening modes is selected.

F.S.SURR
Lights when one of the Front Stage Surround Advance listening modes is selected.

3 Digital format indicators

◻◻ D
Lights during playback of a Dolby Digital source.

◻◻ PLII
Lights during Dolby Pro Logic II decoding.

PCM
Lights during playback of PCM signals.

DTS
Lights during playback of a DTS source.

4 Sound processing indicators

BASS MODE
Lights when Bass Mode is active.

TONE
Lights when any of the Midnight, Quiet or tone controls feature is selected.

V.SB
Lights when Virtual Surround Back mode is active.

L.OUT
Lights when Line Output is set to **Lt/Rt**.

ALC
Lights when listening mode is set to **A.L.C.**.

S.RTRV
Lights when Sound Retriever is active.

DIALOG
Lights when Dialogue Enhancement is active.

5 MCACC

Lights when Acoustic Calibration EQ is active.
Blinks during Auto MCACC Setup.

6 PGM
Lights during program play.

RDM
Lights during random play.

RPT and RPT-1
RPT lights during repeat play. **RPT-1** lights during repeat one-track play.

V
Lights when playing a video part of a DVD disc.

▶
Lights during playback.

I/P
"**I**" lights when Component Out is set to Interlace, and "**P**" lights when Component Out is set to **Progressive**.

🎥
Lights when playing a multi-angle scene.

7 iPod indicators

🔀
Lights during shuffle play.

🔁
Lights during repeat play.

🔂
Lights during 1-track repeat play.

8 Character display

9 Tuner indicators

XM
Lights during XM reception mode.

SIRIUS
Lights during SIRIUS reception mode.

A, B, C
Indicate the class of tuner function.

⚭
Lights when a stereo FM broadcast is being received in auto stereo mode.

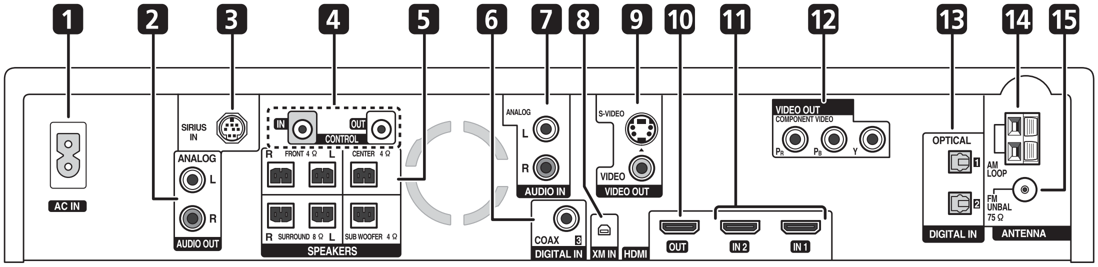
○
Lights when FM mono reception is selected.

Ψ
Lights when a broadcast is being received.

📶
Indicates the antenna status of XM Radio or SIRIUS Radio.

10 🌙
Lights when sleep timer is active.

Rear panel


1
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3
4
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6
7
8
9
10
11
12
13
14
15
AC IN
SIRIUS IN
ANALOG
L
R
AUDIO OUT
IN
OUT
CONTROL
R FRONT 4 Ω L
CENTER 4 Ω
R SURROUND 8 Ω L
SUB WOOFER 4 Ω
SPEAKERS
ANALOG
L
R
AUDIO IN
COAX 3
DIGITAL IN
XM IN
HDMI
S-VIDEO
VIDEO
VIDEO OUT
OUT
IN 2
IN 1
VIDEO OUT
COMPONENT VIDEO
PR
PB
Y
OPTICAL
1
2
DIGITAL IN
AM LOOP
FM UNBAL 75 Ω
ANTENNA

1 AC IN – Power inlet

2 AUDIO OUT (ANALOG) jacks
Connect to the other audio component.

3 SIRIUS IN terminal

4 CONTROL IN/OUT jacks
Use to connect other Pioneer components so that you can control all your equipment from a single IR remote sensor.

5 SPEAKERS terminals
Match the colors of the speaker cables to their respective connectors.

6 DIGITAL IN3 (COAX) jack
To listen to coaxial digital audio, change the input to **Digital 3 COAX**.

7 AUDIO IN (ANALOG) jacks
Handle sound from an external component by using stereo audio cable. To listen to analog audio, change the input to **Analog**.

8 XM IN terminal

9 VIDEO OUT (VIDEO, S-VIDEO) jacks
Use to connect a TV.

10 HDMI OUT connector
Connect to a television that has an HDMI terminal.

11 HDMI IN1/2 connectors
Use high-quality audio/video connection with compatible HDMI devices.

To select this input, choose **HDMI 1** or **HDMI 2**.

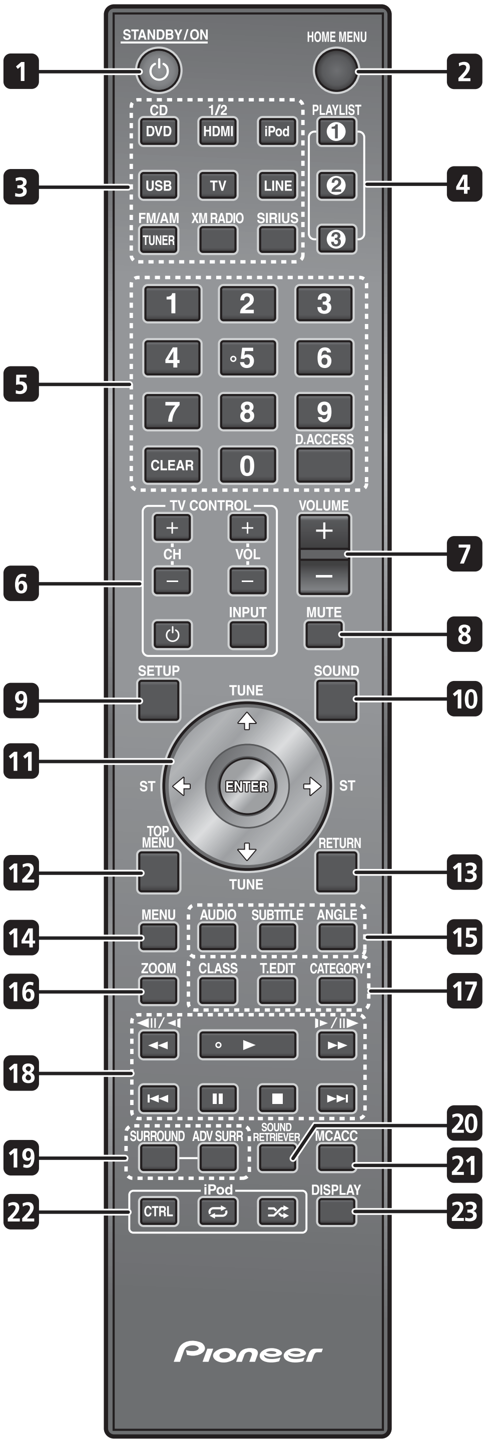
12 VIDEO OUT (COMPONENT VIDEO) jacks
Use the output for connection to a monitor or TV.

13 DIGITAL IN1/2 (OPTICAL) jacks
To listen to optical digital audio, change the input to **Digital 1 OPT** or **Digital 2 OPT**.

14 AM LOOP antenna terminal

15 FM antenna socket

Remote control


STANDBY/ON
HOME MENU
CD
DVD
1/2
HDMI
iPod
PLAYLIST
USB
TV
LINE
FM/AM
TUNER
XM RADIO
SIRIUS
1
2
3
4
5
6
7
8
9
D.ACCESS
CLEAR
0
TV CONTROL
CH
VOL
INPUT
VOLUME
MUTE
SETUP
SOUND
TUNE
ST
ENTER
ST
TOP MENU
RETURN
TUNE
MENU
AUDIO
SUBTITLE
ANGLE
ZOOM
CLASS
T.EDIT
CATEGORY
SURROUND
ADV SURR
SOUND RETRIEVER
MCACC
iPod
CTRL
DISPLAY
Pioneer
1
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5
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23

1 ⏻ STANDBY/ON

Switches the system on or into standby.

2 HOME MENU

Displays (or exits) the on-screen menu for Initial Settings, Play Mode functions, etc.

3 Function select buttons

Use to select an input source.

4 PLAYLIST buttons

Add tracks (during playback), or select a playlist (while stopped).

5 Number buttons

Use to enter a track number or radio station.

D.ACCESS

Press to access a radio station directly using the number buttons.

6 TV CONTROL buttons

These control Pioneer flat panel TVs.

7 VOLUME +/–

Adjusts the volume.

8 MUTE

Mutes the sound (press again to cancel).

9 SETUP

Use to make various system and surround sound settings.

10 SOUND

Accesses the sound menu to adjust the tone, bass and treble, etc..

11 ⬆/⬇/⬅/➡ (TUNE, ST), ENTER

Use to select/switch system settings and modes, and to confirm actions.

Use **TUNE** ⬆/⬇ to find radio frequencies and use **ST** ⬅/➡ to find preset stations.

12 TOP MENU

Displays the top menu of a DVD disc in the play position — this may be the same as pressing **MENU**.

Press to return to the iPod Top menu when using iPod functions.

Press to display the XM or SIRIUS Radio menu.

13 RETURN

Returns to a previous menu screen.

14 MENU

Press to display a USB menu, or the Navigator.

15 DVD controls

AUDIO
Selects audio channel/language.

SUBTITLE
Displays/changes the subtitles.

ANGLE
Changes camera angle during DVD multiangle scene playback.

16 ZOOM
Changes the screen zoom level.

17 Tuner controls

CLASS
Switches between the three banks (classes) of radio station presets.

T.EDIT
Memorizes stations for recall.

CATEGORY
Press to browse digital radio broadcasts.

18 Playback controls

19 Sound controls

SURROUND
Selects a Surround mode or switches to stereo playback.

ADV SURR
Selects a Pioneer original surround mode.

20 SOUND RETRIEVER
Press to restore CD quality sound to compressed audio sources.

21 MCACC
Starts the Auto MCACC setup.

22 iPod controls

CTRL
Switches between the iPod controls and the receiver controls.

🔁
Changes repeat play setting.

🔀
Changes shuffle play setting.

23 DISPLAY
Displays/changes disc information shown onscreen or to display XM or SIRIUS radio information.

Displays song playback information when using the iPod function.

3. BASIC ITEMS FOR SERVICE
3.1 CHECK POINTS AFTER SERVICING

Check points after servicing (HTZ and system audio)

To keep the product quality after servicing, confirm recommended check points shown below.

No.	Procedures	Check points
1	Confirm the firmware version on Service Mode.	The version of the firmware must be latest. Update firmware to the latest one, if it is not the latest.
2	Confirm whether the customer complain has been solved. If the customer complain occurs with the specific disc, use it for the operation check.	The customer complain must not be reappeared. Video, audio and operations must be normal.
3	Confirm playback error rates at the innermost and outermost tracks by using the following disc. DVD test disc (GGV1025)	The error rates must be less than 5.0e-4.
4	Play back a CD. (track search)	Audio and operations must be normal.
5	Play back a DVD. (Menu operation, Title/chapter search)	Video, audio and operations must be normal.
6	Check the tuner (AM and FM) operations.	Audio and operations must be normal.
7	Check the sound from headphone output.	Sound must be normal, without noise.
8	Check the appearance of the product.	No scratches or dirt on its appearance after receiving it for service.

See the table below for the items to be checked regarding video and audio:

Item to be checked regarding video	Item to be checked regarding audio
Block noise	Distortion
Horizontal noise	Noise
Dot noise	Volume too low
Disturbed image (video jumpiness)	Volume too high
Too dark	Volume fluctuating
Too bright	Sound interrupted
Mottled color	

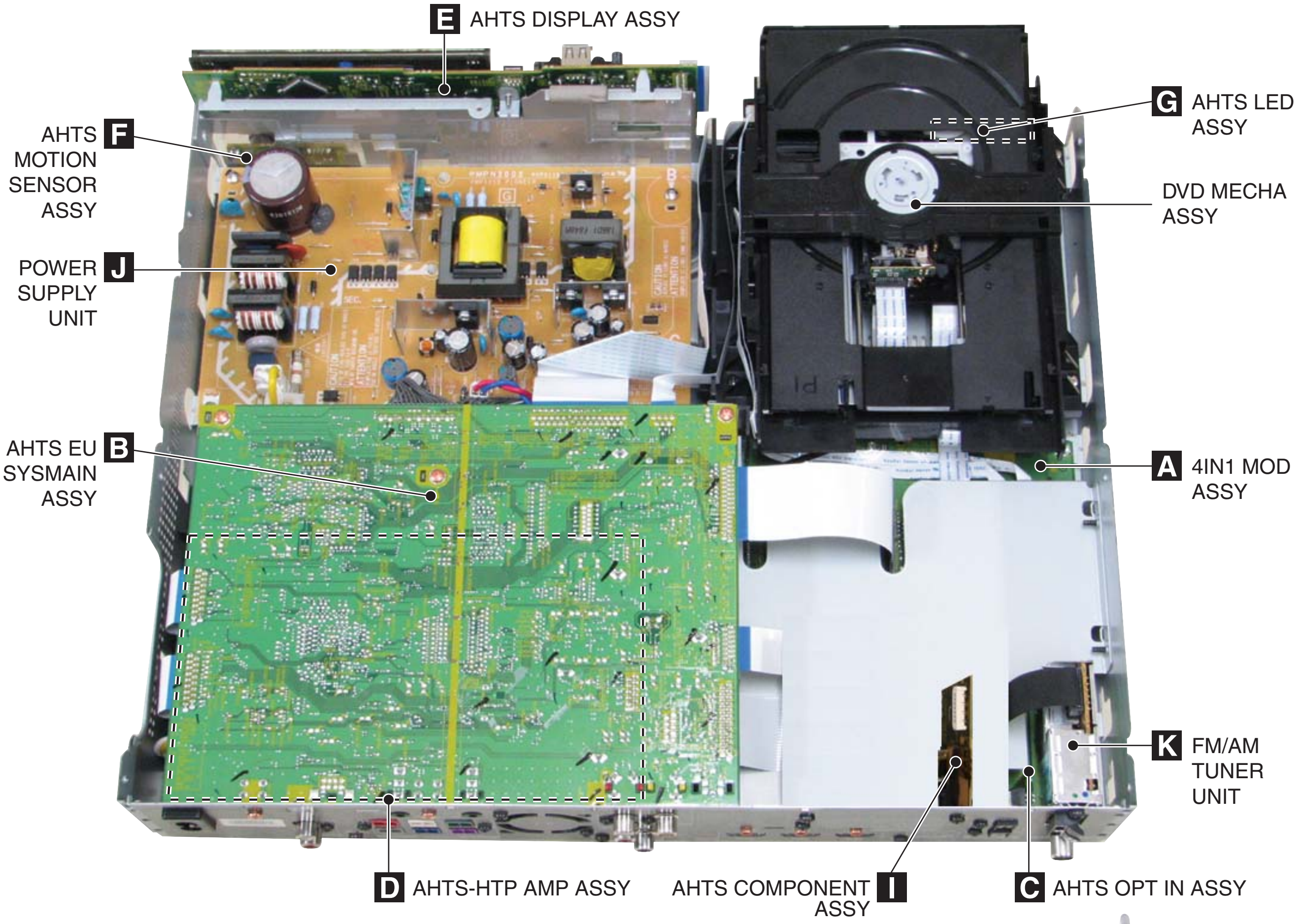
Cleaning

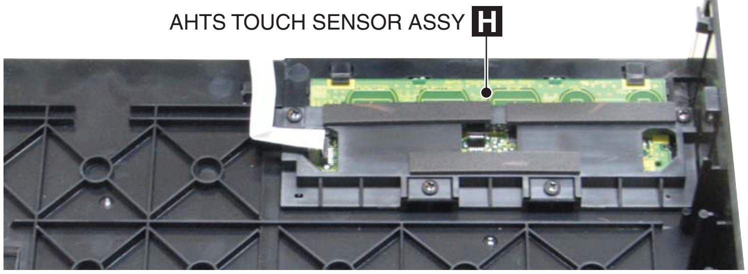
Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools:

Position to be cleaned	Cleaning tools
Pickup lens	Cleaning liquid : GEM1004 Cleaning paper : GED-008

Position to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008

3.2 PCB LOCATIONS


E AHTS DISPLAY ASSY
AHTS MOTION SENSOR ASSY F
G AHTS LED ASSY
DVD MECHA ASSY
POWER SUPPLY UNIT J
AHTS EU SYSMAIN ASSY B
A 4IN1 MOD ASSY
K FM/AM TUNER UNIT
D AHTS-HTP AMP ASSY
AHTS COMPONENT ASSY I
C AHTS OPT IN ASSY


AHTS TOUCH SENSOR ASSY H

(Top Cover)

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*

Mark	No. Description	Part No.
LIST OF ASSEMBLIES		
	1..4IN1 MOD ASSY	AWX9179
	1..AHTS-HTP AMP ASSY	XWK3368
	1..AHTS KU SYSMAIN ASSY	XWM3424
	2..AHTS OPT IN ASSY	XWZ4361
	2..AHTS KU SYSMAIN ASSY	XWZ4363
NSP	1..AHTS TOUCH SENSOR ASSY	XWM3422
	1..AHTS IBD/KU COMPLEX ASSY	XWM3423
	2..AHTS DISPLAY ASSY	XWZ4345
	2..AHTS COMPONENT ASSY	XWZ4346
	2..AHTS MOTION SENSOR ASSY	XWZ4347
	2..AHTS LED ASSY	XWZ4348
⚠	1..POWER SUPPLY UNIT	XWR3019
	1..FM/AM TUNER UNIT	AXX7250
	1..DVD MECHA ASSY (for service)	A2ZX01A650

3.3 JIGS LIST

■ Jigs list

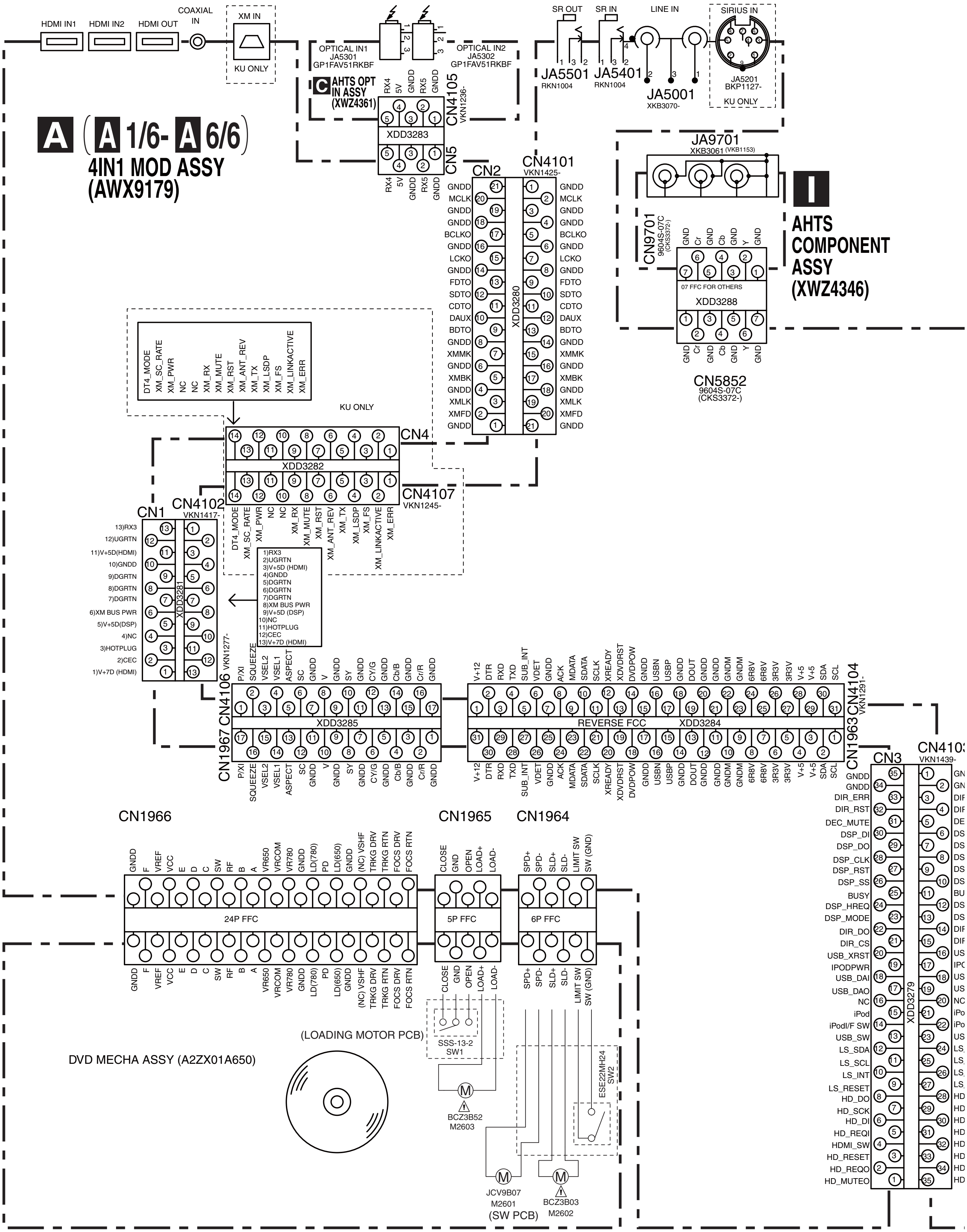
Name	Jig No.	Remarks
Service Remote Control Unit	GGF1381	Adjustment, diagnosis
DVD Test Disc (DVD-Video)	GGV1025	Check of DVD-Video
CD Test Disc	STD-905	Check of CD
DVD Data Disc	GGV1326	ID data setting
Speaker Cable with terminal	SDS1174 (FL/WHITE) SDS1175 (FR/RED), SDS1176 (SL/BLUE) SDS1177 (SR/GRAY), SDS6050 (C/GREEN)	For checking audio at the SP terminal
17P FFC x2	GGD1606	Diagonosis
16P Extension jig cable	GGD1607	Diagonosis

■ Lubricants and Glues list

Name	Lubricants and Glues No.	Remarks
Daifree	GEM1036 (ZLX-ME413A)	Refer to "9.4 DVD MECHA ASSY"
Lubricating oil	GYA1001 (ZLB-PN397B)	Refer to "9.4 DVD MECHA ASSY"
Grease	GEM1018	Refer to "9.4 DVD MECHA ASSY"
Silicon grease	GEM1057	Refer to "9.3 CHASSIS SECTION"

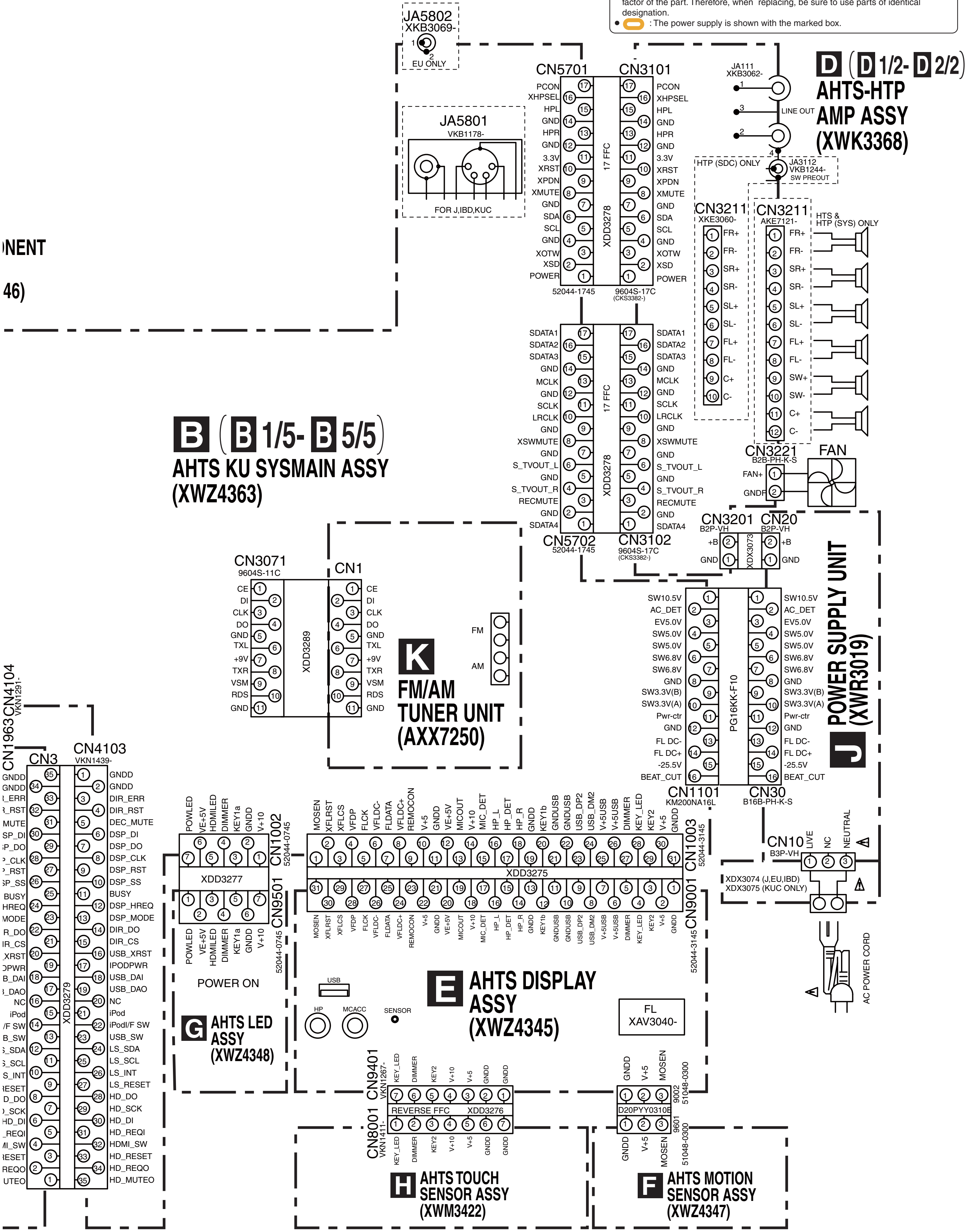
4. BLOCK DIAGRAM

4.1 OVERALL CONNECTION DIAGRAM



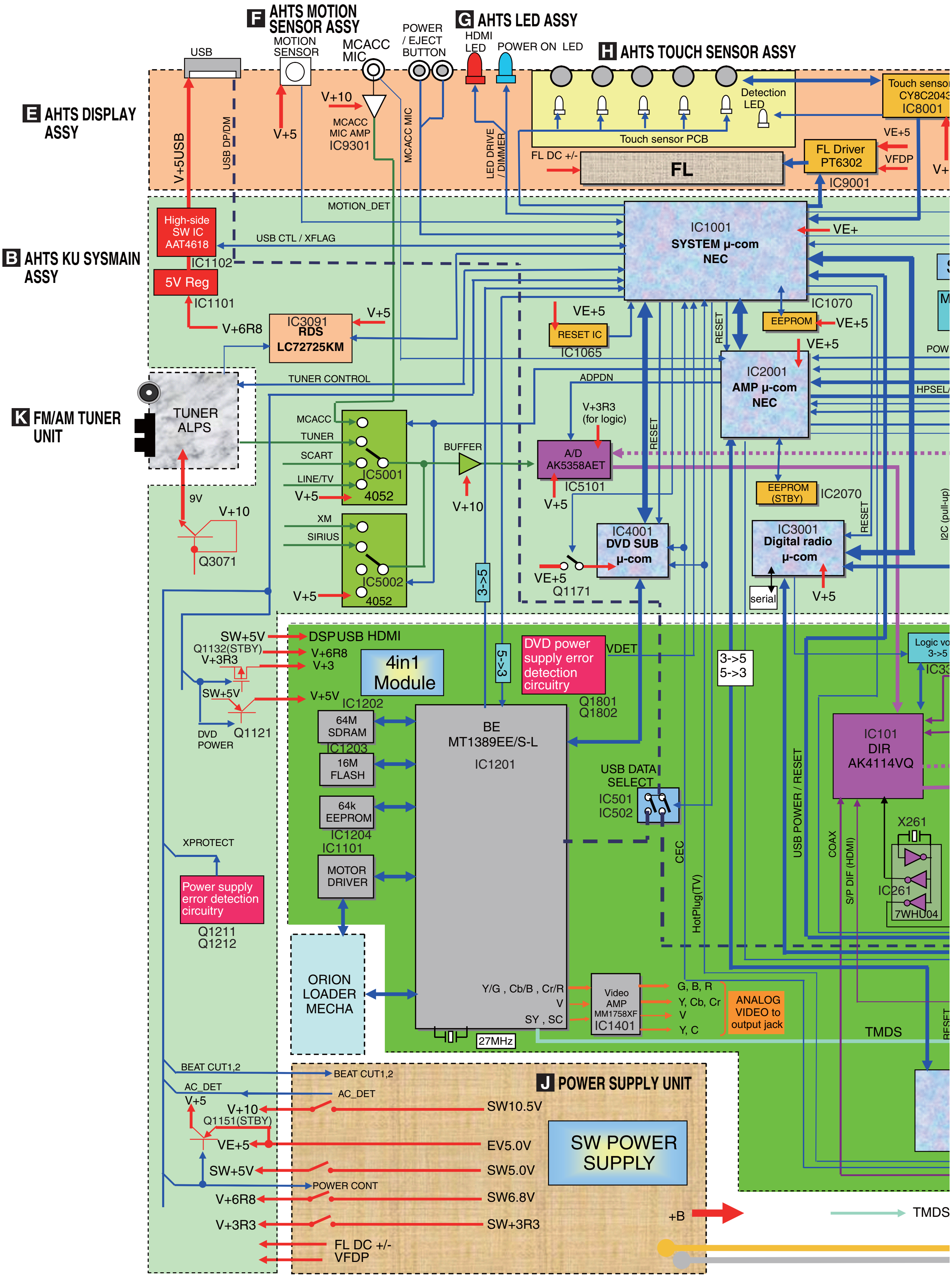
A (A 1/6- A 6/6)
4IN1 MOD ASSY
(AWX9179)
HDMI IN1
HDMI IN2
HDMI OUT
COAXIAL IN
XM IN
KU ONLY
OPTICAL IN1
JA5301
GP1FAV51RKBF
OPTICAL IN2
JA5302
GP1FAV51RKBF
C AHTS OPT IN ASSY (XWZ4361)
CN4105
VKN1236-
RX4
5V
GNDD
RX5
GNDD
XDD3283
CN5
SR OUT
SR IN
LINE IN
SIRIUS IN
JA5501
RKN1004
JA5401
RKN1004
JA5001
XKB3070-
JA5201
BKP1127-
KU ONLY
JA9701
XKB3061 (VKB1153)
I
AHTS COMPONENT ASSY
(XWZ4346)
CN9701
9604S-07C
(CKS3372-)
GND
Cr
Cb
Y
07 FFC FOR OTHERS
XDD3288
CN5852
9604S-07C
(CKS3372-)
CN2
CN4101
VKN1425-
XDD3280
GNDD
MCLK
BCLKO
LCKO
FDTO
SDTO
CDTO
DAUX
BDTO
XMMK
XMBK
XMLK
XMFD
DT4_MODE
XM_SC_RATE
XM_PWR
NC
XM_RX
XM_MUTE
XM_RST
XM_ANT_REV
XM_TX
XM_LSDP
XM_FS
XM_LINKACTIVE
XM_ERR
KU ONLY
CN4
XDD3282
CN4107
VKN1245-
CN1
CN4102
VKN1417-
XDD3281
13)RX3
12)UGRTN
11)V+5D(HDMI)
10)GNDD
9)DGRTN
8)DGRTN
7)DGRTN
6)XM BUS PWR
5)V+5D(DSP)
4)NC
3)HOTPLUG
2)CEC
1)V+7D (HDMI)
1)RX3
2)UGRTN
3)V+5D (HDMI)
4)GNDD
5)DGRTN
6)DGRTN
7)DGRTN
8)XM BUS PWR
9)V+5D (DSP)
10)NC
11)HOTPLUG
12)CEC
13)V+7D (HDMI)
CN4106
VKN1277-
CN1967
XDD3285
P/XI
SQUEEZE
VSEL2
VSEL1
ASPECT
SC
GNDD
V
SY
CY/G
Cb/B
Cr/R
CN4104
VKN1291-
CN1963
REVERSE FCC
XDD3284
V+12
DTR
RXD
TXD
SUB_INT
VDET
ACK
MDATA
SDATA
SCLK
XREADY
XDVDRST
DVDPOW
USBN
USBP
DOUT
GNDM
6R8V
3R3V
V+5
SDA
SCL
CN3
CN4103
VKN1439-
XDD3279
GNDD
DIR_ERR
DIR_RST
DEC_MUTE
DSP_DI
DSP_DO
DSP_CLK
DSP_RST
DSP_SS
BUSY
DSP_HREQ
DSP_MODE
DIR_DO
DIR_CS
USB_XRST
IPODPWR
USB_DAI
USB_DAO
NC
iPod
iPodI/F SW
USB_SW
LS_SDA
LS_SCL
LS_INT
LS_RESET
HD_DO
HD_SCK
HD_DI
HD_REQI
HDMI_SW
HD_RESET
HD_REQO
HD_MUTEO
CN1966
CN1965
CN1964
GNDD
F
VREF
VCC
E
D
C
SW
RF
B
A
VR650
VRCOM
VR780
LD(780)
PD
LD(650)
(NC) VSHF
TRKG DRV
TRKG RTN
FOCS DRV
FOCS RTN
24P FFC
CLOSE
GND
OPEN
LOAD+
LOAD-
5P FFC
SPD+
SPD-
SLD+
SLD-
LIMIT SW
SW (GND)
6P FFC
(LOADING MOTOR PCB)
SSS-13-2
SW1
M
BCZ3B52
M2603
ESE22MH24
SW2
DVD MECHA ASSY (A2ZX01A650)
JCV9B07
M2601
(SW PCB)
BCZ3B03
M2602

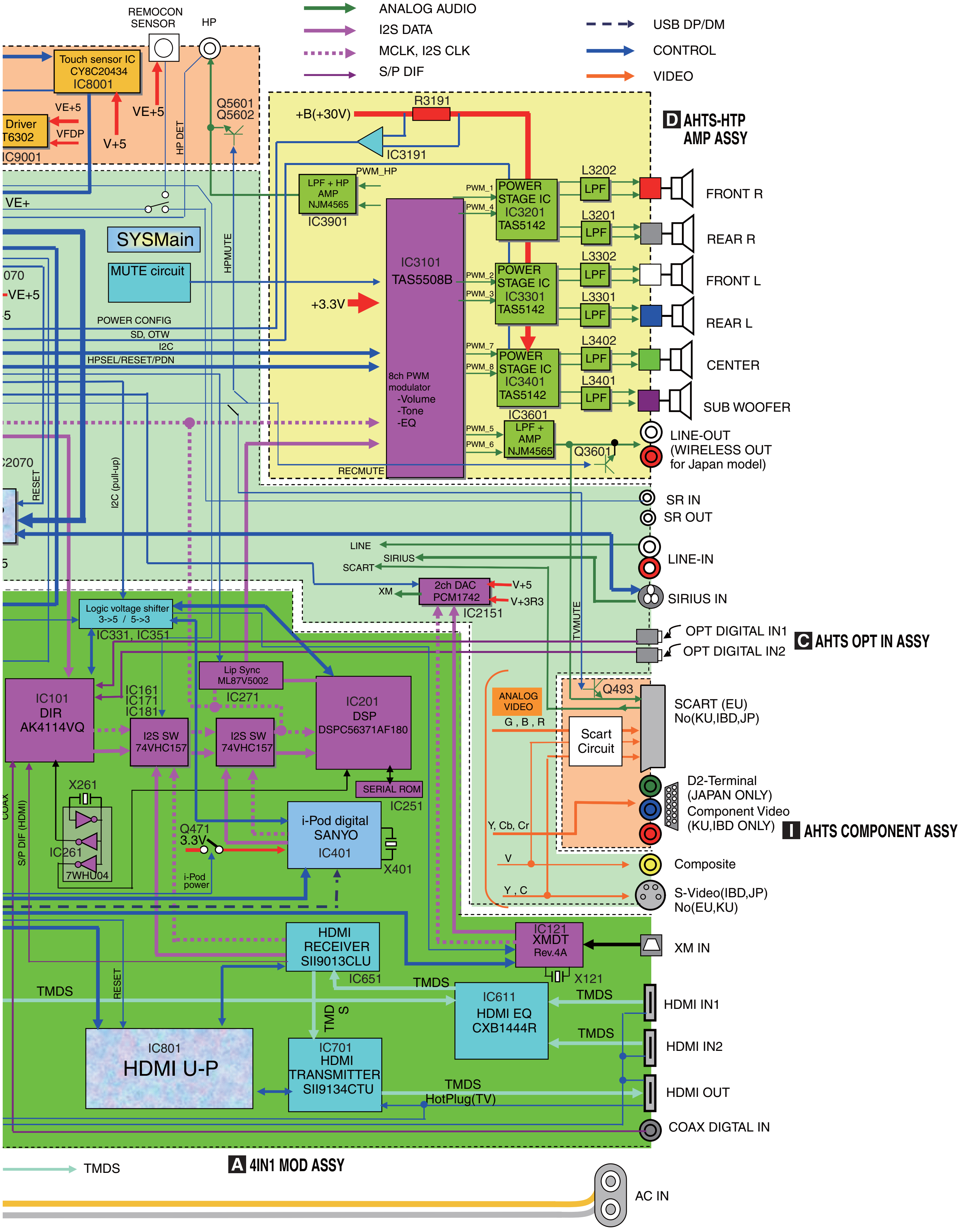
- When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- ▭ : The power supply is shown with the marked box.



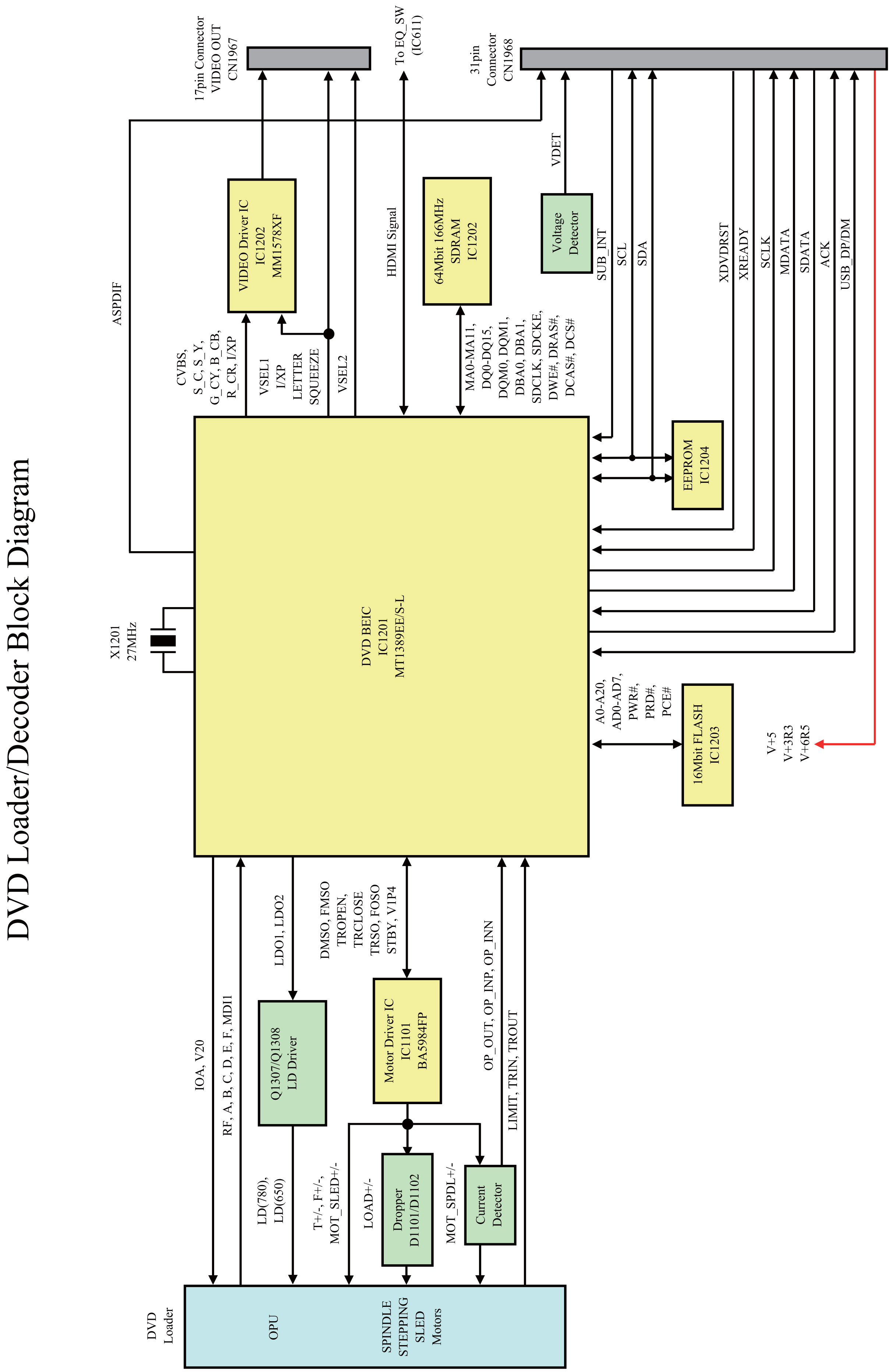
D (D 1/2- D 2/2)
AHTS-HTP AMP ASSY (XWK3368)
B (B 1/5- B 5/5)
AHTS KU SYSMAIN ASSY (XWZ4363)
ONENT
46)
K FM/AM TUNER UNIT (AXX7250)
J POWER SUPPLY UNIT (XWR3019)
E AHTS DISPLAY ASSY (XWZ4345)
G AHTS LED ASSY (XWZ4348)
H AHTS TOUCH SENSOR ASSY (XWM3422)
F AHTS MOTION SENSOR ASSY (XWZ4347)
JA5802 XKB3069- EU ONLY
JA5801 VKB1178- FOR J,IBD,KUC
CN5701 52044-1745
CN3101 9604S-17C (CKS3382-)
17 FFC XDD3278
PCON, XHPSEL, HPL, GND, HPR, GND, 3.3V, XRST, XPDN, XMUTE, GND, SDA, SCL, GND, XOTW, XSD, POWER
CN5702 52044-1745
CN3102 9604S-17C (CKS3382-)
SDATA1, SDATA2, SDATA3, GND, MCLK, GND, SCLK, LRCLK, GND, XSWMUTE, GND, S_TVOUT_L, GND, S_TVOUT_R, RECMUTE, GND, SDATA4
JA111 XKB3062-
LINE OUT
JA3112 VKB1244- SW PREOUT
HTP (SDC) ONLY
CN3211 XKE3060-
CN3211 AKE7121-
HTS & HTP (SYS) ONLY
FR+, FR-, SR+, SR-, SL+, SL-, FL+, FL-, SW+, SW-, C+, C-
CN3221 B2B-PH-K-S
FAN+, GNDF
FAN
CN3201 B2P-VH
CN20 B2P-VH
XDX3073
+B, GND
CN3071 9604S-11C
CN1
XDD3289
CE, DI, CLK, DO, GND, TXL, +9V, TXR, VSM, RDS, GND
FM
AM
CN1101 KM200NA16L
CN30 B16B-PH-K-S
PG16KK-F10
SW10.5V, AC_DET, EV5.0V, SW5.0V, SW5.0V, SW6.8V, SW6.8V, GND, SW3.3V(B), SW3.3V(A), Pwr-ctr, GND, FL DC-, FL DC+, -25.5V, BEAT_CUT
CN10 B3P-VH
LIVE, NC, NEUTRAL
XDX3074 (J,EU,IBD)
XDX3075 (KUC ONLY)
AC POWER CORD
CN1963
CN4104 VKN1291-
CN3
CN4103 VKN1439-
XDD3279
GNDD, GNDD, DIR_ERR, DIR_RST, DEC_MUTE, DSP_DI, DSP_DO, DSP_CLK, DSP_RST, DSP_SS, BUSY, DSP_HREQ, DSP_MODE, DIR_DO, DIR_CS, USB_XRST, IPODPWR, USB_DAI, USB_DAO, NC, iPod, iPodI/F SW, USB_SW, LS_SDA, LS_SCL, LS_INT, LS_RESET, HD_DO, HD_SCK, HD_DI, HD_REQI, HDMI_SW, HD_RESET, HD_REQO, HD_MUTEO
CN1002 52044-0745
CN9501 52044-0745
XDD3277
POWLED, VE+5V, HDMILED, DIMMER, KEY1a, GNDD, V+10
POWER ON
CN1003 52044-3145
CN9001 52044-3145
XDD3275
MOSEN, XFLRST, XFLCS, VFDP, FLCK, VFLDC-, FLDATA, VFLDC+, REMOCON, V+5, GNDD, VE+5V, MICOUT, V+10, MIC_DET, HP_L, HP_DET, HP_R, GNDD, KEY1b, GNDUSB, GNDUSB, USB_DP2, USB_DM2, V+5USB, V+5USB, DIMMER, KEY_LED, KEY2, V+5, GNDD
USB
HP
MCACC
SENSOR
FL XAV3040-
CN9401 VKN1267-
CN8001 VKN1411-
REVERSE FFC XDD3276
KEY_LED, DIMMER, KEY2, V+10, V+5, GNDD, GNDD
9002 51048-0300
9601 51048-0300
D20PYY0310E
GNDD, V+5, MOSEN

4.2 OVERALL BLOCK DIAGRAM


F AHTS MOTION SENSOR ASSY
MOTION SENSOR
MCACC MIC
POWER / EJECT BUTTON
G AHTS LED ASSY
HDMI LED
POWER ON LED
H AHTS TOUCH SENSOR ASSY
USB
E AHTS DISPLAY ASSY
V+5USB
USB DP/DM
V+5
V+10
MCACC MIC AMP IC9301
MCACC MIC
LED DRIVE / DIMMER
Detection LED
Touch sensor PCB
Touch sensor CY8C2043 IC8001
VE+5
FL Driver PT6302
VFDP
FL DC +/-
FL
IC9001
B AHTS KU SYSMAIN ASSY
MOTION_DET
High-side SW IC AAT4618
IC1102
USB CTL / XFLAG
5V Reg
IC1101
V+6R8
V+5
IC3091 RDS LC72725KM
IC1001 SYSTEM µ-com NEC
VE+
IC1070
EEPROM
VE+5
RESET IC
IC1065
RESET
IC2001 AMP µ-com NEC
POW
HPSEL
ADPDN
TUNER CONTROL
K FM/AM TUNER UNIT
TUNER ALPS
9V
V+10
Q3071
MCACC
TUNER
SCART
LINE/TV
IC5001 4052
XM
SIRIUS
IC5002 4052
BUFFER
V+3R3 (for logic)
A/D AK5358AET
IC5101
EEPROM (STBY)
IC2070
I2C (pull-up)
IC4001 DVD SUB µ-com
Q1171
IC3001 Digital radio µ-com
serial
3->5
5->3
SW+5V
Q1132(STBY)
V+3R3
DSP USB HDMI
V+6R8
V+3
4in1 Module
DVD power supply error detection circuitry
VDET
Q1801
Q1802
Logic vo 3->5
IC33
IC1202
64M SDRAM
IC1203
16M FLASH
64k EEPROM
IC1204
IC1101
MOTOR DRIVER
Q1121
DVD POWER
BE MT1389EE/S-L IC1201
USB DATA SELECT
IC501
IC502
CEC
HotPlug(TV)
USB POWER / RESET
COAX
S/P DIF (HDMI)
IC101 DIR AK4114VQ
X261
IC261 7WHU04
XPROTECT
Power supply error detection circuitry
Q1211
Q1212
ORION LOADER MECHA
Y/G, Cb/B, Cr/R
V
SY, SC
Video AMP MM1758XF IC1401
G, B, R
Y, Cb, Cr
Y, C
ANALOG VIDEO to output jack
27MHz
TMDS
RESET
BEAT CUT1,2
AC_DET
J POWER SUPPLY UNIT
V+10
Q1151(STBY)
VE+5
SW10.5V
EV5.0V
SW5.0V
SW6.8V
SW+3R3
POWER CONT
SW POWER SUPPLY
+B
FL DC +/-
VFDP


ANALOG AUDIO
I2S DATA
MCLK, I2S CLK
S/P DIF
USB DP/DM
CONTROL
VIDEO
REMOCON SENSOR
HP
Touch sensor IC
CY8C20434
IC8001
VE+5
VFDP
Driver
T6302
IC9001
VE+5
V+5
HP DET
Q5601
Q5602
VE+
SYSMain
MUTE circuit
070
VE+5
5
HPMUTE
POWER CONFIG
SD, OTW
I2C
HPSEL/RESET/PDN
2070
RESET
I2C (pull-up)
5
D AHTS-HTP AMP ASSY
+B(+30V)
R3191
IC3191
PWM_HP
LPF + HP AMP NJM4565
IC3901
IC3101
TAS5508B
+3.3V
8ch PWM modulator
-Volume
-Tone
-EQ
RECMUTE
PWM_1
PWM_4
PWM_2
PWM_3
PWM_7
PWM_8
PWM_5
PWM_6
POWER STAGE IC
IC3201
TAS5142
POWER STAGE IC
IC3301
TAS5142
POWER STAGE IC
IC3401
TAS5142
IC3601
LPF + AMP
NJM4565
L3202
L3201
L3302
L3301
L3402
L3401
LPF
FRONT R
REAR R
FRONT L
REAR L
CENTER
SUB WOOFER
LINE-OUT
(WIRELESS OUT for Japan model)
Q3601
SR IN
SR OUT
LINE
SIRIUS
SCART
LINE-IN
SIRIUS IN
2ch DAC
PCM1742
V+5
V+3R3
XM
IC2151
TVMUTE
OPT DIGITAL IN1
OPT DIGITAL IN2
C AHTS OPT IN ASSY
Logic voltage shifter
3->5 / 5->3
IC331, IC351
Lip Sync
ML87V5002
IC271
IC101
DIR
AK4114VQ
IC161
IC171
IC181
I2S SW
74VHC157
I2S SW
74VHC157
IC201
DSP
DSPC56371AF180
SERIAL ROM
IC251
ANALOG VIDEO
G , B , R
Q493
Scart Circuit
SCART (EU)
No(KU,IBD,JP)
D2-Terminal
(JAPAN ONLY)
Component Video
(KU,IBD ONLY)
I AHTS COMPONENT ASSY
Y, Cb, Cr
V
Y , C
Composite
S-Video(IBD,JP)
No(EU,KU)
X261
IC261
7WHU04
COAX
S/P DIF (HDMI)
Q471
3.3V
i-Pod power
i-Pod digital
SANYO
IC401
X401
HDMI RECEIVER
SII9013CLU
IC651
IC121
XMDT
Rev.4A
X121
XM IN
TMDS
RESET
TMDS
IC611
HDMI EQ
CXB1444R
TMDS
TMDS
HDMI IN1
HDMI IN2
IC801
HDMI U-P
TMDS
IC701
HDMI TRANSMITTER
SII9134CTU
TMDS
HotPlug(TV)
HDMI OUT
COAX DIGTAL IN
TMDS
A 4IN1 MOD ASSY
AC IN

4.3 DVD LOADER/DECODER BLOCK DIAGRAM


DVD Loader/Decoder Block Diagram
17pin Connector
VIDEO OUT
CN1967
To EQ_SW
(IC611)
31pin
Connector
CN1968
ASPDIF
VIDEO Driver IC
IC1202
MM1578XF
HDMI Signal
64Mbit 166MHz
SDRAM
IC1202
VDET
Voltage
Detector
SUB_INT
SCL
SDA
XDVDRST
XREADY
SCLK
MDATA
SDATA
ACK
USB_DP/DM
CVBS,
S_C, S_Y,
G_CY, B_CB,
R_CR, I/XP
VSEL1
I/XP
LETTER
SQUEEZE
VSEL2
MA0-MA11,
DQ0-DQ15,
DQM0, DQM1,
DBA0, DBA1,
SDCLK, SDCKE,
DWE#, DRAS#,
DCAS#, DCS#
EEPROM
IC1204
X1201
27MHz
DVD BEIC
IC1201
MT1389EE/S-L
A0-A20,
AD0-AD7,
PWR#,
PRD#,
PCE#
16Mbit FLASH
IC1203
V+5
V+3R3
V+6R5
IOA, V20
RF, A, B, C, D, E, F, MDI1
LDO1, LDO2
Q1307/Q1308
LD Driver
DMSO, FMSO
TROPEN,
TRCLOSE
TRSO, FOSO
STBY, V1P4
Motor Driver IC
IC1101
BA5984FP
OP_OUT, OP_INP, OP_INN
LIMIT, TRIN, TROUT
LD(780),
LD(650)
T+/-, F+/-,
MOT_SLED+/-
LOAD+/-
Dropper
D1101/D1102
MOT_SPDL+/-
Current
Detector
DVD
Loader
OPU
SPINDLE
STEPPING
SLED
Motors

5. DIAGNOSIS

5.1 METHOD FOR DIAGNOSING DEGRADATION OF THE LDS ON THE PICKUP

Case when this diagnosis is required :
When playback of any disc, including a test disc (DVD: GGV1025, CD: STD-905), cannot be performed

■ How to diagnose

In the case mentioned above, degradation of the laser diodes (LDs) mounted on the Pickup PCB is suspected.
Measure the voltage between the two ends of one of the resistors mentioned below.

- **No playback of a DVD :**

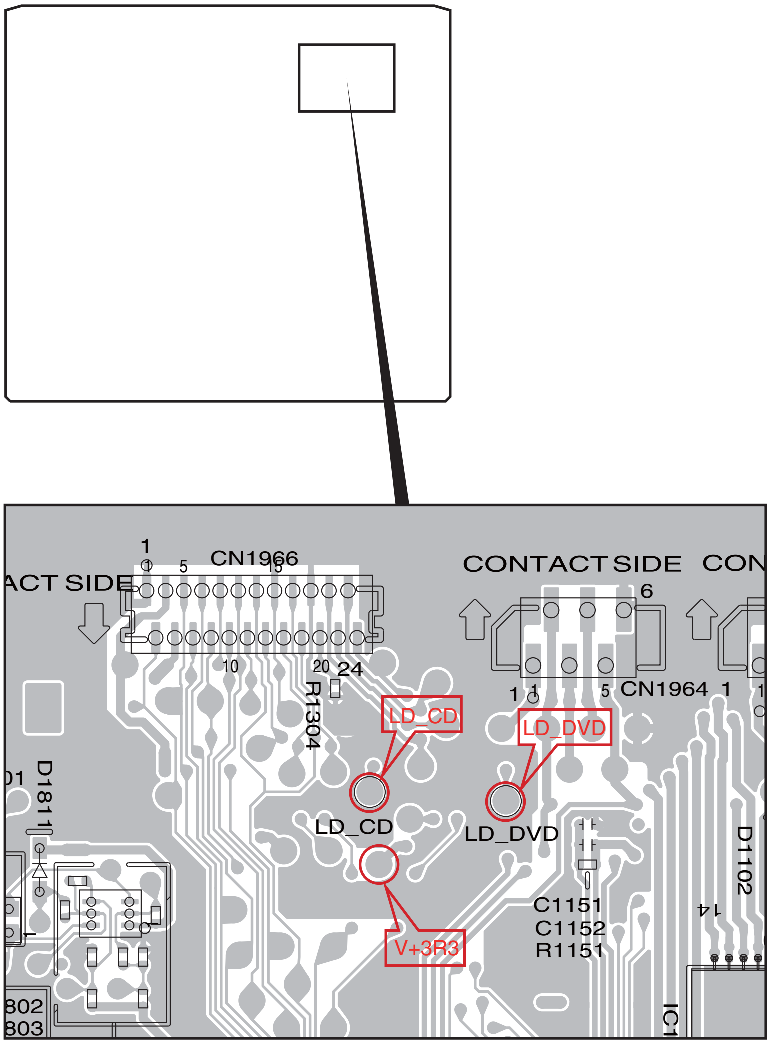
  Measure the voltage between the two ends of R1322 or R1325 on the 4IN1 MOD Assy. If the voltage is 0.4 V or higher, the 650-nm LD is degraded.

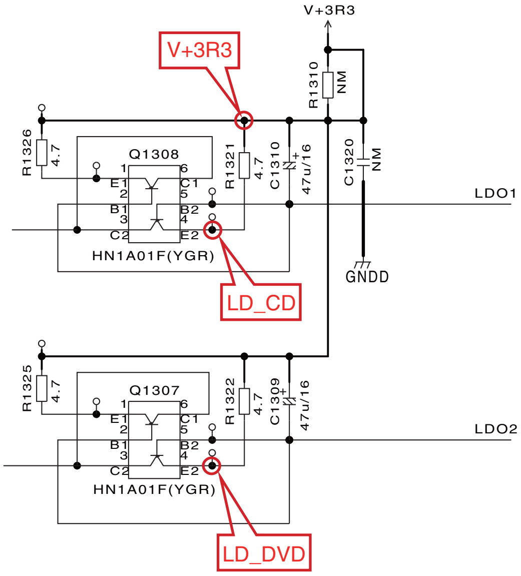
- **No playback of a CD :**

  Measure the voltage between the two ends of R1321 or R1326 on the 4IN1 MOD Assy. If the voltage is 0.4 V or higher, the 780-nm LD is degraded.

If the measurements show degradation of an LD, replace the DVD MECHA Assy.

A 4IN1 MOD ASSY **SIDE A**


1
5
CN1966
15
ACT SIDE
10
20
24
R1304
LD_CD
LD_CD
CONTACT SIDE
CON
6
1
1
5
CN1964
1
LD_DVD
LD_DVD
01
D1811
D1102
C1151
C1152
R1151
14
V+3R3
802
803
IC1


V+3R3
V+3R3
R1310
NM
R1326
4.7
Q1308
1
6
E1
C1
2
5
B1
B2
3
4
C2
E2
HN1A01F(YGR)
R1321
4.7
C1310
47u/16
C1320
NM
LDO1
GNDD
LD_CD
R1325
4.7
Q1307
1
6
E1
C1
2
5
B1
B2
3
4
C2
E2
HN1A01F(YGR)
R1322
4.7
C1309
47u/16
LDO2
LD_DVD

5.2 DVD TROUBLE SHOOTING

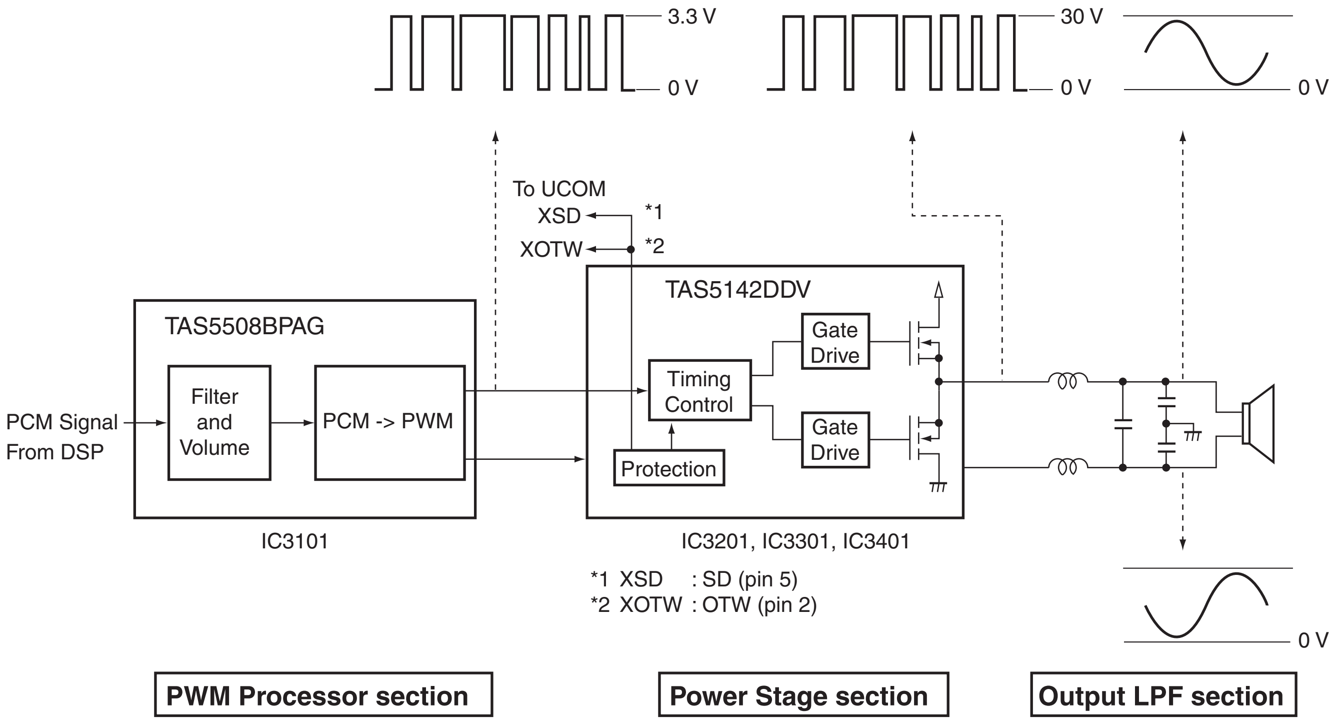
● Symptoms that may occur when any of the following ICs is in failure

IC	Symptoms
EEP ROM (4IN1 MOD Assy : IC1204)	User's data cannot be stored in memory. The ID number is lost.
Flash ROM (4IN1 MOD Assy : IC1203)	The power cannot be turned on. Downloading of the firmware cannot be performed.
DVD IC (4IN1 MOD Assy : IC1201)	Any kind of symptoms (no power, a failure in any of the servo, video and audio systems, USB etc.) may be generated, because the DVD processing is performed by a single chip.
64M SDRAM (4IN1 MOD Assy : IC1202)	No power. Block noise is generated during playback.
DVD SUB UCOM (SYSMAIN Assy : IC4001)	No power.

No.	Symptoms	Diagnosis Contents	Possible Defective Points
1	The power is not turned on.	Are wires of output connector (POWER SUPPLY Unit) and CN1968 (4IN1 MOD Assy) disconnected or damaged ?	Connector / cable
		Check that the following voltage is output : CN1968-pin 5 or pin 6 (4IN1 MOD Assy): 3.3 V	**POWER SUPPLY Unit**
2	An opening screen is not displayed on the monitor (The FL display lights. The mechanism does not work.)	Are the signals output from IC1201-pin 97 (MDATA) and pin 98 (SCLK) on the 4IN1 MOD Assy ? (in the range of 0 - 3 V)	**4IN1 MOD Assy** DVD IC (IC1201)
		Are the signals input into IC1001-pin 85 (MDATA) and pin 86 (SCLK) on the SYSMAIN Assy ? (in the range of 0 - 3V)	**SYSMAIN Assy** UCOM (IC1001)
		Check that the following voltage are output : Q1121-collector on the SYSMAIN Assy: 5V	**POWER SUPPLY Unit / SYSMAIN Assy** Q1121
		Is a resonator (X1201: 27 MHz) on the 4IN1 MOD Assy oscillating ?	**4IN1 MOD Assy** Crystal resonator (X1201) DVD IC (IC1201)
		• Is a signal input into IC1203-pin26 (PCE#) on the 4IN1 MOD Assy ? (Is a signal "H" for 80 ms and then "L" after the power is turned on ?) -> Communication with flash ROM. • Are the signals input into IC1202-pin 16 (DWE#), pin 19 (DCS#) and pin 38 (SDCLK) on the 4IN1 MOD Assy ? (Is a signal fluctuating ?) -> Communication with SDRAM	**4IN1 MOD Assy** DVD IC (IC1201) Flash ROM (IC1203) SDRAM (IC1202)
		Is a signal output from IC1203-pin 28 (PRD#) on the 4IN1 MOD Assy? (Is a signal fluctuating for several hundred ms after the power is turned on ?)	**4IN1 MOD Assy** Flash ROM (IC1203)
		Is a signal input into IC1001-pin 11 (DVD ACK) on the SYSMAIN Assy ? (Is a signal fluctuating ?) -> Communication with System Control IC	**4IN1 MOD Assy** DVD IC (IC1201) **SYSMAIN Assy** UCOM (IC1001)
		Is a signal output from IC1001-pin 13 (XREADY) on the SYSMAIN Assy ? (Is a signal fluctuating in the range of 0-5V ?)	**SYSMAIN Assy** UCOM (IC1001)
		Are the signals output from IC1001-pin 84 (SDATA) on the SYSMAIN Assy ? (in the range of 0-5V)	**4IN1 MOD Assy** DVD IC (IC1201) **SYSMAIN Assy** UCOM (IC1001)
		Are the signals of IC1204-pin 5 (SDA) and pin 6 (SCL) on the 4IN1 MOD Assy fluctuating for one or two seconds after the power is turned?	**4IN1 MOD Assy** EEPROM (IC1204)
3	An opening screen is not displayed on the monitor (The FL display lights. The mechanism works.)	Check the video signal path between DVD IC (4IN1 MOD Assy IC201) and video-out terminal (see the block diagram)	**4IN1 MOD Assy** Video circuit after DVD IC (IC1201)

No.	Symptoms	Diagnosis Contents	Possible Defective Points
4	A tray cannot be opened. (An opening screen is displayed on the monitor)	Does the voltage of CN1965-pin 1 and pin 3 on the 4IN1 MOD Assy change normally ? Pin 1 (CLOSE (TRIN)): Tray is fully closed: "L" Pin 3 (OPEN (TROUT)): Tray is fully opened: "L"	**DVD MECHA Assy** Switch (SW1)
		Is the signal input into IC1101-pin 1 (TROPEN), pin 28 (TRCLOSE) on the 4IN1 MOD Assy? Pin 1: Approx. 0 V during opening tray approx. 3.3 V during closing tray. Pin 28: Approx. 3.3 V during opening tray approx. 0 V during closing tray.	**4IN1 MOD Assy** DVD IC (IC1201)
		Are the signals output from CN1965-pin 5 and pin 4 on the 4IN1 MOD Assy? Pin 5: Approx. 5 V during opening tray approx. 1 V during closing tray. Pin 4: Approx. 0 V during opening tray approx. 6 V during closing tray.	**4IN1 MOD Assy** FTS Driver IC (IC1101)
		Are wires of CN1964 and CN1965 on the 4IN1 MOD Assy disconnected or damaged ?	Connector / cable
		Does the voltage of CN1964-pin 5 on the 4IN1 MOD Assy change to 0 V by pressing the Push switch.	Push switch (SW2)
5	Playback impossible (no focusing)	Are the signals output from IC1101-pin 16 (F+) and pin 15 (F–) on the 4IN1 MOD Assy ?	**4IN1 MOD Assy** FTS Driver IC (IC1101)
		Does 650-nm LD emit light ? Does a pickup lens move up / down ? Does an actuator spring bend ?	Pickup
		Are plastic parts damaged ? Or is a shaft detached ? Is the turntable detached or tilted ?	Mechanism section (motor)
		Is flexible cable of CN1965 on the 4IN1 MOD Assy disconnected or damaged ?	Flexible cable / connector
		Is signal output from IC1201-pin 41 (FOSO) on the 4IN1 MOD Assy ? (Device control of about 1.4 V is output usually. It is fluctuated by about 250 mV with focus up / down.)	**4IN1 MOD Assy** DVD IC (IC1201)
6	Playback impossible (Spindle does not turn)	Are the signals output from IC1101-pin 12 (MOT_SPDL–) and pin 11 (MOT_SPDL+) on the 4IN1 MOD Assy ? Is pin 21 (STBY) fixed LOW ? (pin 21 is High at playback: 3 V)	**4IN1 MOD Assy** FTS Driver IC (IC1101)
		Is there any part detached from the spindle motor ? Or Is there any foreign object lodged in it ?	Mechanism section (Spindle motor)
		Are wires of CN1964 on the 4IN1 MOD Assy disconnected or damaged ?	Flexible cable / connector
		Is signal output from IC1201-pin 36 (DMSO) on the 4IN1 MOD Assy ?	**4IN1 MOD Assy** DVD IC (IC1201)
7	Playback impossible (Playback stops)	Does 650-nm LD deteriorate ? If the voltage at each both ends of R1322 and R1325 on the 4IN1 MOD Assy is 0.4 V or more, the 650-nm LD is definitely deteriorated.	650-nm LD deteriorated. (When playback of a DVD is impossible)
		Does 780-nm LD deteriorate ? If the voltage at each both ends of R1321 and R1326 on the 4IN1 MOD Assy is 0.4 V or more, the 780-nm LD is definitely deteriorated.	780-nm LD deteriorated. (When playback of a CD is impossible)
		Are there scratches or dirt on the disc ?	Disc
8	Picture disturbance during playback (block noise, freeze, other)	Are there scratches or dirt on the disc ? Is there a problem with the format of the disc ?	Disc
		Check the video signals. Composite video signal (IC1401-pin 23) S video signal (IC1401-pin 21, pin 26) RGB video signal (IC1401-pin 16, pin 18, pin 20)	**4IN1 MOD Assy** DVD IC (IC1201) Video IC (IC1401)

5.3 CIRCUIT DESCRIPTION OF DIGITAL AMP SECTION


3.3 V
0 V
30 V
0 V
0 V
To UCOM
XSD
XOTW
*1
*2
TAS5508BPAG
Filter and Volume
PCM -> PWM
PCM Signal From DSP
TAS5142DDV
Timing Control
Gate Drive
Gate Drive
Protection
IC3101
IC3201, IC3301, IC3401
*1 XSD : SD (pin 5)
*2 XOTW : OTW (pin 2)
0 V
PWM Processor section
Power Stage section
Output LPF section

PWM Processor section

The PCM signals output from the DSP are input to this section, and their volume and sound quality are digitally adjusted. At the output stage, after conversion from PCM to PWM, the signals are output to the Power stage.

Power Stage section

In this section, timing is controlled so that the MOSFETs on the high and low sides will not be turned on simultaneously. The voltage of the PWM signals are raised to drive the gates of the MOSFET, and the PWM signals to drive the speakers are output from the MOSFET at the output stage. Detection and protection functions against short-circuiting of the output signals and temperature exceeding the standard value are also provided.

If the detection and protection work, the ports of the power stage ICs become the following state.

Power Stage ICs No.	Protection Enable State
IC3201 IC3301 IC3401	SD (pin 5) => L
	OTW (pin 2) => L

Output LPF section

The carrier elements, high-frequency signals that are unnecessary for these speakers, are eliminated. The signals passed through the LPF will become sine-wave signals, as shown in the figure above.

5.4 SPECIFICATIONS OF PROTECTION CIRCUITS FOR DIGITAL AMP SECTION

The protection circuits for the Digital Amplifier are activated, following the specifications shown below. The error indication on the FL display shows the reason a protection circuit was activated.
Upon diagnosis of the Digital Amplifier, refer to the specifications for the protection circuits here and the overview of the Digital Amplifier circuitry.

1. Overview

The system microcomputer monitors the ports for shutdown requests (pin 5: /SD) and the ports for abnormal-temperature detection (pin 2: /OTW) of the Power Stage ICs (IC3201, IC3301, and IC3401). As soon as any abnormality is detected, it shuts the unit down.
To notify the user of the possibility of a too high a volume, when the unit is turned on the next time, the volume level will be set to 0, and an error message will be displayed on the FL display.

2. Ports on the Amp microcomputer to be used for detection

Pin 75: SHUTDOWN
High voltage at this pin means overcurrent or voltage too low (= V+B) at a Power Stage IC.

Pin 69: OTW
High voltage at this pin means the temperature at the Power Stage ICs exceeded 125 °C.

Pin 53: PCONFIG (A/D port)
This port is PCONFIG but use it for abnormal temperature rise prevention.

Note: As one Power Stage IC is provided with two channels, three Power Stage ICs (in total 6 channels) are mounted in this unit. For abnormality detection, the unit implements a logical OR operation regarding these three ICs. Therefore, which IC is abnormal cannot be known directly. To find which IC is abnormal, it is required to check the PWM outputs (pins 28, 31, 36, 39) of the each power stage ICs (IC3201, IC3301, IC3401).

3. Detection timing

Detect it in activation of TAS5508 (during power ON and HOT standby).

Start : Detection starts 500 ms after transfer reset data to TAS5508.

Finish : When the STANDBY/ON key is pressed again (when the power-off process starts).
*Except at HOT standby and during shifting to HOT standby

4. Operation of the protection circuits

The following four protection circuits are activated when the conditions shown below are met:

Overcurrent detection1: Indication on the FL display: OC Error1
Conditions: If the SHUTDOWN ports, which are monitored every 10 ms, become High 7 times in succession

Overcurrent detection2: Indication on the FL display: OC Error2
Conditions: The PCONFIG ports (pin 53), which are monitored every 20 ms, become more than 1.82 V more than 45 % in one minute.

Abnormal temperature detection 1: Indication on the FL display: Over Temp
Conditions: If the OTW ports, which are monitored every 10 ms, become High in succession for one minute.

Abnormal temperature detection 2: Indication on the FL display: Over Temp
(Prerequisite: The OTW ports, which are monitored every 10 ms, become High three times in succession.)
Conditions: The above prerequisite is upheld, and the conditions for an overcurrent detection1 are met.

5. Process when the protection circuits are activated

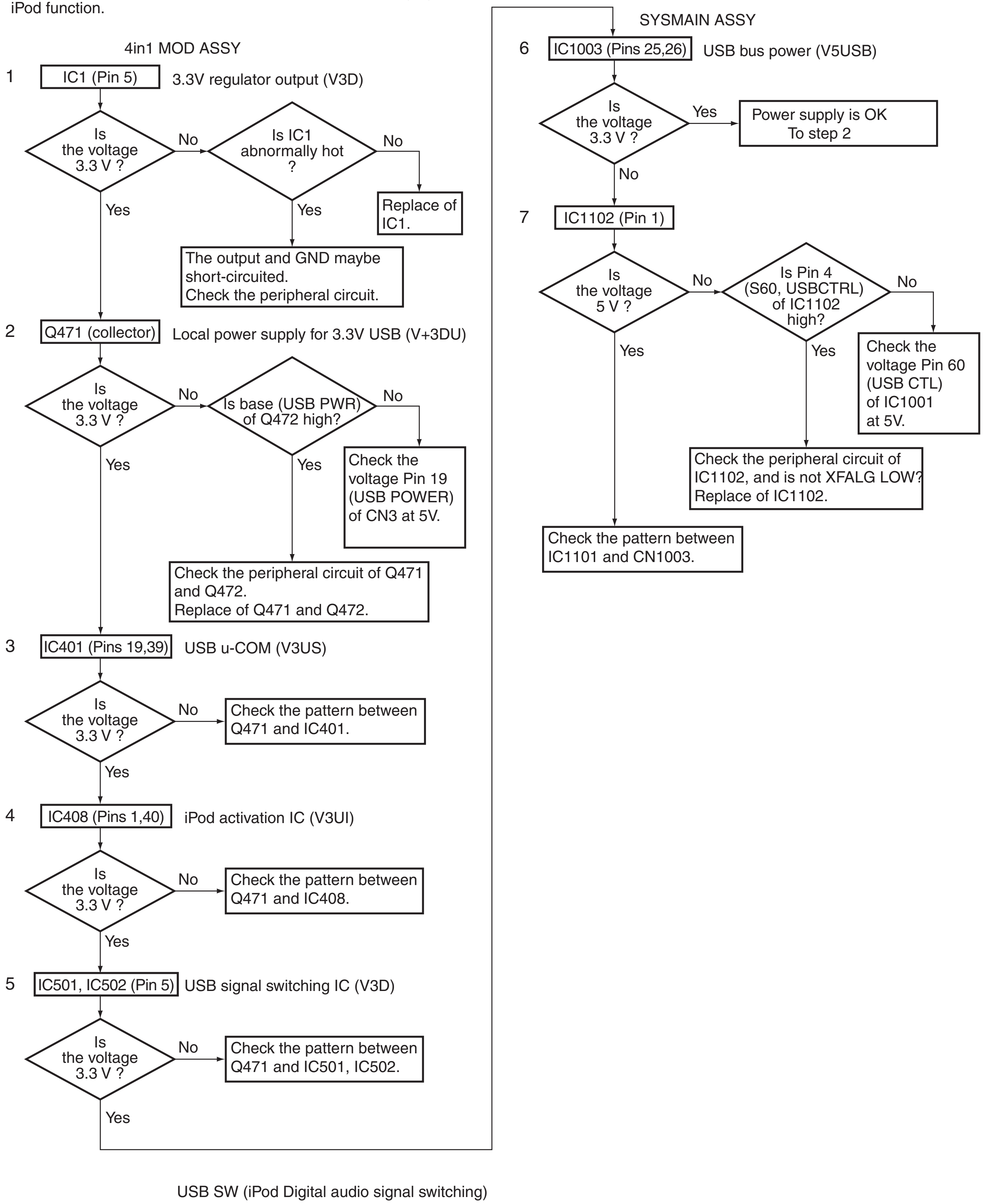
TAS5508 is reset within 20 ms after abnormality detection then the volume level is set to 0.
The unit is shut down within 100 ms after abnormality detection.
The unit can be turned on immediately after the shutdown.

5.5 USB/iPod TROUBLESHOOTING

iPod block Troubleshooting

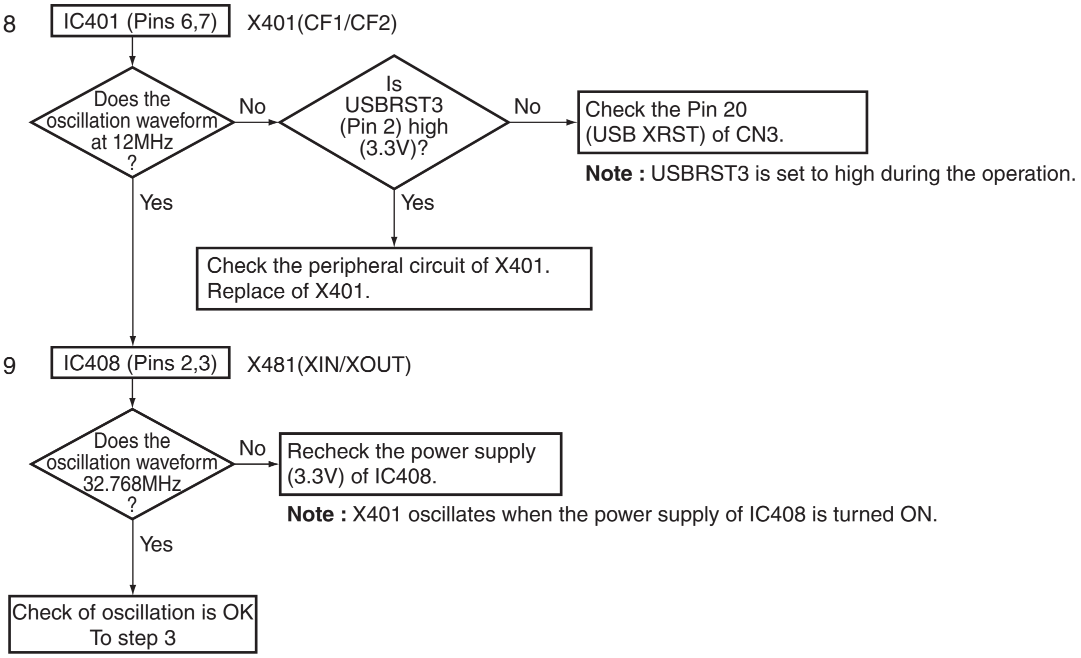
Step 1: Check of power supply

* Turn ON the power of product and check the power supply by iPod function.


4in1 MOD ASSY
1
IC1 (Pin 5)
3.3V regulator output (V3D)
Is the voltage 3.3 V ?
No
Is IC1 abnormally hot ?
No
Replace of IC1.
Yes
Yes
The output and GND maybe short-circuited.
Check the peripheral circuit.
2
Q471 (collector)
Local power supply for 3.3V USB (V+3DU)
Is the voltage 3.3 V ?
No
Is base (USB PWR) of Q472 high?
No
Check the voltage Pin 19 (USB POWER) of CN3 at 5V.
Yes
Yes
Check the peripheral circuit of Q471 and Q472.
Replace of Q471 and Q472.
3
IC401 (Pins 19,39)
USB u-COM (V3US)
Is the voltage 3.3 V ?
No
Check the pattern between Q471 and IC401.
Yes
4
IC408 (Pins 1,40)
iPod activation IC (V3UI)
Is the voltage 3.3 V ?
No
Check the pattern between Q471 and IC408.
Yes
5
IC501, IC502 (Pin 5)
USB signal switching IC (V3D)
Is the voltage 3.3 V ?
No
Check the pattern between Q471 and IC501, IC502.
Yes
USB SW (iPod Digital audio signal switching)
SYSMAIN ASSY
6
IC1003 (Pins 25,26)
USB bus power (V5USB)
Is the voltage 3.3 V ?
Yes
Power supply is OK
To step 2
No
7
IC1102 (Pin 1)
Is the voltage 5 V ?
No
Is Pin 4 (S60, USBCTRL) of IC1102 high?
No
Check the voltage Pin 60 (USB CTL) of IC1001 at 5V.
Yes
Yes
Check the peripheral circuit of IC1102, and is not XFALG LOW?
Replace of IC1102.
Check the pattern between IC1101 and CN1003.

Step 2: Check of oscillation

* Turn ON the power of product and check the power supply by iPod function.


8
IC401 (Pins 6,7)
X401(CF1/CF2)
Does the oscillation waveform at 12MHz ?
No
Is USBRST3 (Pin 2) high (3.3V)?
No
Check the Pin 20 (USB XRST) of CN3.
Yes
Yes
Check the peripheral circuit of X401. Replace of X401.
9
IC408 (Pins 2,3)
X481(XIN/XOUT)
Does the oscillation waveform 32.768MHz ?
No
Recheck the power supply (3.3V) of IC408.
Yes
Check of oscillation is OK To step 3

Note : USBRST3 is set to high during the operation.

Note : X401 oscillates when the power supply of IC408 is turned ON.

Step 3: Check of operation of USB u-COM

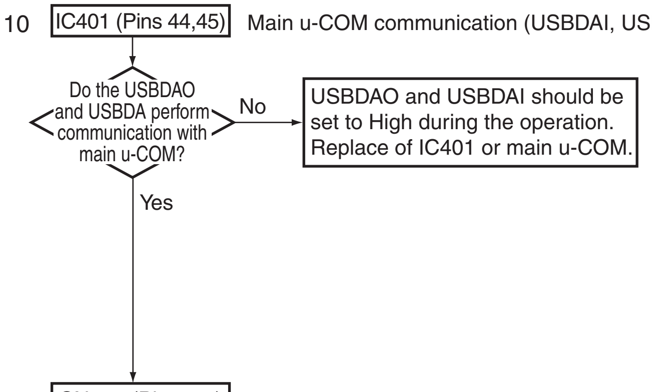
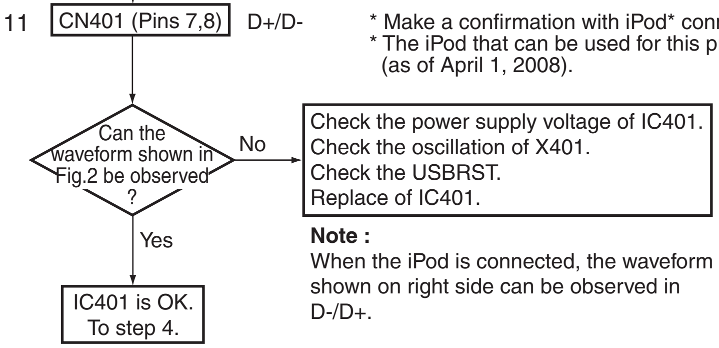

10
IC401 (Pins 44,45)
Main u-COM communication (USBDAI, USBDAO)
Do the USBDAO and USBDA perform communication with main u-COM?
No
USBDAO and USBDAI should be set to High during the operation. Replace of IC401 or main u-COM.
Yes

Fig. 1

	IC401	IC331 (5 V → 3 V)		CN3
USBDAI	Pin 44	Pin 8	Pins 9,10	Pin 18

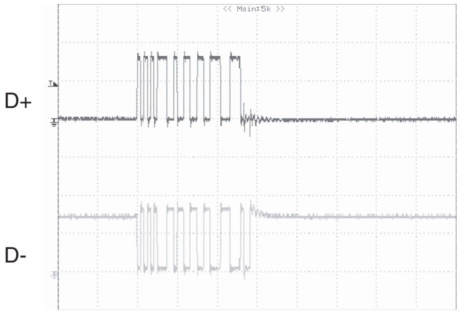
	IC401	IC351 (3 V → 5 V)		CN3
USBDAO	Pin 45	Pin 9	Pin 11	Pin 17


11
CN401 (Pins 7,8)
D+/D-
Can the waveform shown in Fig.2 be observed ?
No
Check the power supply voltage of IC401. Check the oscillation of X401. Check the USBRST. Replace of IC401.
Yes
IC401 is OK. To step 4.

* Make a confirmation with iPod* connected.
* The iPod that can be used for this product is iPod 5G, iPod nano, iPod classic and iPod touch (as of April 1, 2008).

Note :
When the iPod is connected, the waveform shown on right side can be observed in D-/D+.

Fig. 2

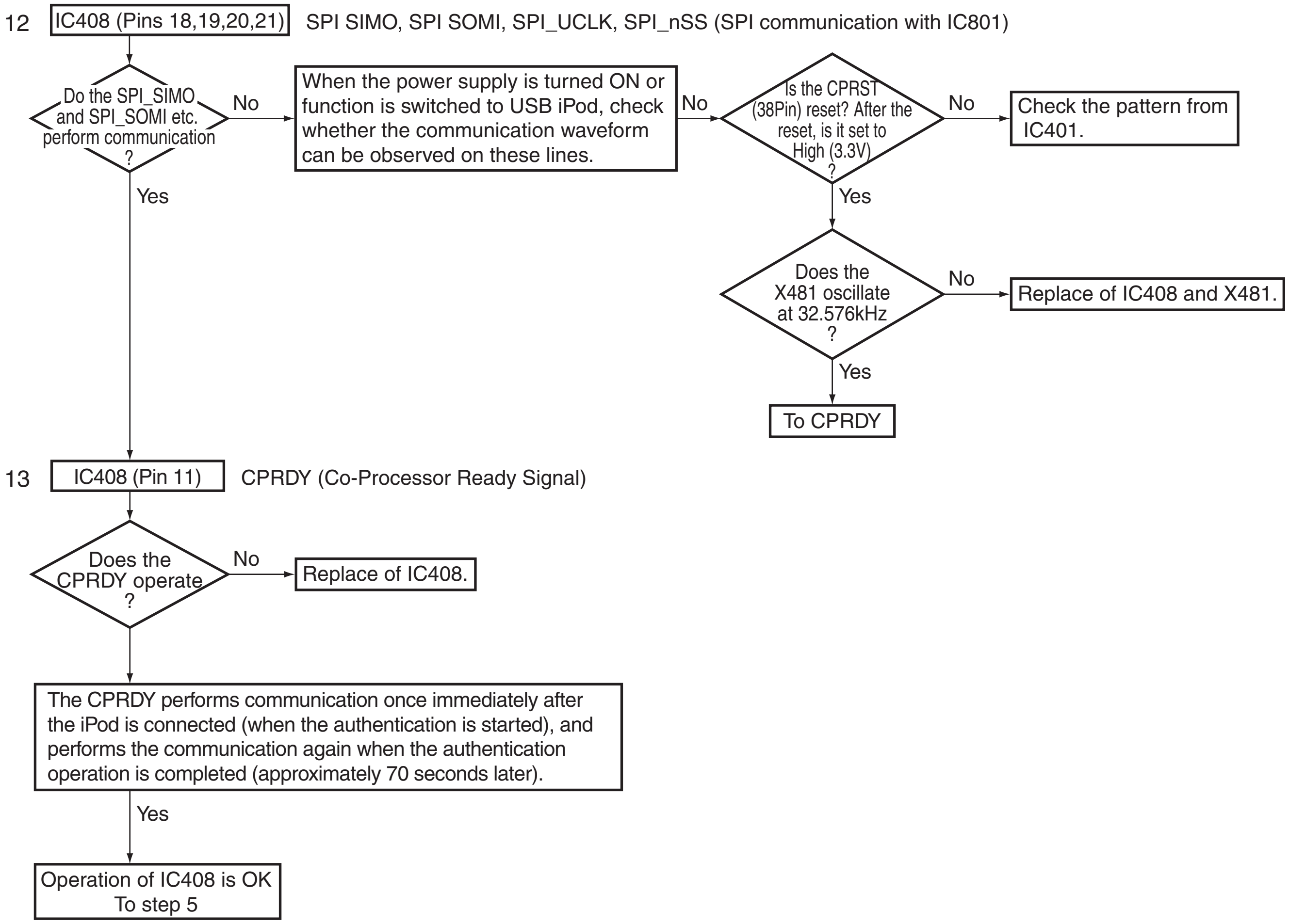


X: 1 µsec/div, Y: 2 V/div

As it is USB2.0 (FS),
the P-P value is approximately 3 to 3.5V.

Step 4: iPod authentication process

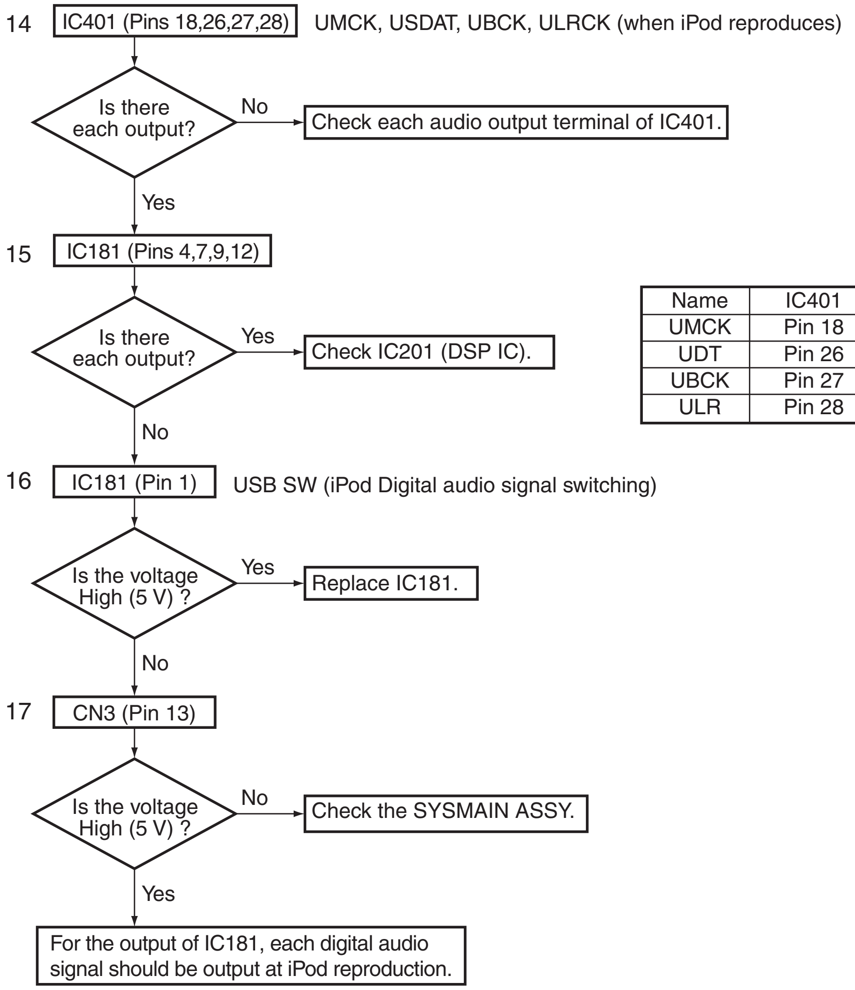
When the USB playback is available and only the iPod cannot be played
* Connect the iPod and make a confirmation.


12
IC408 (Pins 18,19,20,21)
SPI SIMO, SPI SOMI, SPI_UCLK, SPI_nSS (SPI communication with IC801)
Do the SPI_SIMO and SPI_SOMI etc. perform communication ?
No
When the power supply is turned ON or function is switched to USB iPod, check whether the communication waveform can be observed on these lines.
No
Is the CPRST (38Pin) reset? After the reset, is it set to High (3.3V) ?
No
Check the pattern from IC401.
Yes
Does the X481 oscillate at 32.576kHz ?
No
Replace of IC408 and X481.
Yes
To CPRDY
Yes
13
IC408 (Pin 11)
CPRDY (Co-Processor Ready Signal)
Does the CPRDY operate ?
No
Replace of IC408.
The CPRDY performs communication once immediately after the iPod is connected (when the authentication is started), and performs the communication again when the authentication operation is completed (approximately 70 seconds later).
Yes
Operation of IC408 is OK
To step 5

Step 5: Digital audio output signal

The digital audio signal from IC401 (USB u-COM) at the iPod reproduction.

	IC401 output Pin	Signal name	Meaning and details
iPod playback	18	UMCK	iPod Master Clock.
	26	UDT	iPod Serial Data.
	27	UBCK	iPod Bit Clock.
	28	ULR	iPod LR Clock.


14
IC401 (Pins 18,26,27,28)
UMCK, USDAT, UBCK, ULRCK (when iPod reproduces)
Is there each output?
No
Check each audio output terminal of IC401.
Yes
15
IC181 (Pins 4,7,9,12)
Is there each output?
Yes
Check IC201 (DSP IC).
No
16
IC181 (Pin 1)
USB SW (iPod Digital audio signal switching)
Is the voltage High (5 V) ?
Yes
Replace IC181.
No
17
CN3 (Pin 13)
Is the voltage High (5 V) ?
No
Check the SYSMAIN ASSY.
Yes
For the output of IC181, each digital audio signal should be output at iPod reproduction.

Name	IC401	IC181		IC201	Name
UMCK	Pin 18	Pin 10	Pin 9	Pin 73	MCK
UDT	Pin 26	Pin 3	Pin 4	Pin 1	FDTI
UBCK	Pin 27	Pin 6	Pin 7	Pin 62, 76	BCKI
ULR	Pin 28	Pin 13	Pin 12	Pin 60, 78	LCKI

5.6 ERROR AND WARNING MESSAGE

Error by backup failure

`SYS  BackUpERR` The system microcomputer abnormality with backup data (EEPROM)

The following conditions are some possibilities:

1. Communication line to the EEPROM (or flash ROM) could either be disconnected or short.
2. The EEPROM (or flash ROM) IC itself could be faulty.

Power related warning

`Protect E` Error due to Power abnormality (through Protect circuit)

`Protect W` Warning due to Power abnormality (through Protect circuit)

1. Abnormality due to short or exceeding threshold of V+10, V+5, V+3R3, VFDP
2. Somewhere toward System micro-p, VDET line get grounded, shorted, or broke

`DVD Protect` DVD related Power Abnormality error

1. Abnormality due to short or exceeding threshold of V+6R8, V+5V, V+3
2. Somewhere toward System micro-p, VDET line get grounded, shorted, or broke

Amplifier related warning

`OC Error1` Over current surge detect error

- On the next normal power up, and OC Error1 don't happened again, then probably it is due to shorted of speakers terminal.
- IF OC Error occurred again, probabe cause may be following:
  1. Out of the 3 digital Amp IC (TAS5142DKD) in AMP Assy, some of them may be faulty.
  2. Somewhere along the lines from above mentioned IC to speakers Terminals, lines get shorted.
  3. Somewhere along the lines from above mentioned IC to Amp Micro-p, XSD line get shorted to GND, or broke.
  4. VS+12 voltage is below (below 10 V)
  5. (symptom not appearing again) Due to customer setting, the 2 end of the SP cable got shorted, and volume got raised.
  6. (symptom not appearing again) due to customer setting, SP cable conducting part touches the player chasis.

`OC Error2` Over current surge detect error

- On the next normal power up, and OC Error2 don't happened again, then probably it is due to over volume while playing.
- IF OC Error occurred again, probabe cause may be following:
  1. Somewhere along the lines from power sensing circuit to Amp micro-p, PCONFIG line get shorted to power line or broke.

`Over Temp` High temperature error

- On the next normal power up, and Overtemp don't happened again, then there is no abnormality. (Possible to be just temporary rise of temperature, so lower the volume and try playing again.)
- If Overtemp occurred again, possible symptom are as follow:
  1. Out of the 3 digital Amp IC (TAS5142DKD) in AMP Assy, some of them may be faulty.
  2. Somewhere along the lines from the above mentioned IC to Amp micro-p, XOTW line get shorted to GND.
  3. Heat Sink is not installed properly (screw loss, forget to apply silicon grease, etc)

DVD related warning

`Tray Lock` *blink for 2 sec

While in Tray Lock and trying the following operation
- OPEN/CLOSE

`Key Lock` *blink for 2 sec

While in Key Lock and trying the following operation
- All key

USB related warning

`USB Error` *blink no timeout

USB over current detect error

iPod related warning

`iPod Error` *blink no timeout

iPod over current detect error

DSP related warning

No MIC *blink for 2 sec	MIC not connected and trying the following operation • MCACC
Muting *blink for 2 sec	While Muting and trying the following operation • MCACC
96kHz PCM *blink for 2 sec 192kHz PCM *blink for 2 sec	While source sampling freq is 88.2 kHz and above and trying the following operations • SURROUND • ADVANCED • F. S. SURR • SOUND RETRIEVER
2ch Only *blink for 2 sec	Playing of multi channel souce (except 2/0 LtRt) and trying the following operation • SOUND RETRIEVER
Phones In *blink for 2 sec	Having headphone plugged in, and trying the following operations • MCACC • WIRELESS
W Stereo *blink for 2 sec	While in wireless stereo mode and trying following operations • SOUND RETRIEVER • MCACC • SURROUND • ADVANCED • F. S. SURR
Line Out Mode *blink for 2 sec	While in line out mode and trying following operations • SOUND RETRIEVER • MCACC • SURROUND • ADVANCED • F. S. SURR
Exit	While in a certain menu, a type of stream (audio) forbidden at that menu instant came, it will result in the cancellation of the menu abruptly. Ex.) while in panorama menu, and multi channel source came.

digital radio related warning

XM ANT ERR SIRIUS ANT ERR	(XM/SIRIUS) Antenna Error “antenna not connected”
AcquringSignal	(XM/SIRIUS) Acquiring Signal “no signal”
SubscrptionUpdating scroll	(XM/SIRIUS) Subscription Updating
UpdatingChannels scroll	(XM/SIRIUS) Updating Channels
InvalidChannels scroll	(XM/SIRIUS) Subscription Updating
Call 885-539-SIRIUS scroll	(XM/SIRIUS) Ex.) Call 885-539-SIRIUS

HDMI related warning

HDMI Audio<TV>

*blink for 2 sec

HDMI Audio mode <TV> while in HDMI Audio mode (TV) setting, and listening mode, etc was selected. (2 sec interval)

north america model only

HDCP ERROR

HDCP error (verification error)
HDMI-LED flashes (when verifying and having verification error)
*HDMI-LED light up (completion of verification)

north america model only

Not Support

HDCP error (verification error)

1) HDMI monitor, regardless whether it is Deep Colour compatible or not, will display "Not support" and drop the signal to 8 bit output when the source player output Deep Color signal.
2) HDMI monitor, regardless whether it is 1080p compatible or not, will display "Not support" and not output the the signal when the source player output 1090p signal.

HDMI-CEC related warning

HDMI C.ERR ***

1 shot every 5 sec interval

CEC command error display (HDMI CONTROL ERR)
The last 3-digit numbers *** indicates the cause of error. (below chart)
The relationship between an error number and an error content are as follows:

- **Error number list**

110	Automatic logic address	Command error	Check the connection of HDMI cable. The cable may be broken. (The main unit or the connected device may be broken.)
120	GibePhysicalAddress	Command error	
130	Get CEC Version undecided	Command error	
140	Give Device Vendor ID undecided	Command error	
150	VCID Give Command Level undecided	Command error	
160	Give Device Power Status undecided	Command error	
170	Set System Audio Mode undecided	Command error	
180	Request Active Source undecided	Command error	
190	VCID TV switch request undecided	Command error	
1A0	VCID lip-sync request undecided	Command error	
1B0	VCID volume display undecided	Command error	
1C0	VCID genre request undecided	Command error	
2C0	VCID genre request undecided	Time-out error	The unit may be connected with the device that doesn't support a genre interlocking function. The connected device may be in the state that doesn't enable a genre interlocking function (While the power is OFF, etc.)

USB/iPod ERROR MESSAGE

If an error message lights in the frontpanel display, try following the points below:

Symptom	What it means
Error I1	There is a problem with the signal path from the iPod to the unit. Switch off the unit and reconnect the iPod to the unit. If this doesn't seem to work, tryresetting your iPod.
Error I2	The software version being used with the iPod needs to be updated. Update the software being used with the iPod (please use the latest iPod software versions later than the iPod updater 2004-10-20).
Error I3	The iPod that is not supported is connected. Check whether the iPod was supported by this unit.
	When the iPod software version is too old, update the iPod software to the latest version.
Error I4	When there is no response from the iPod, update the iPod software to the latest version. If this doesn't seem to work, tryresetting your iPod.
iPod Error	The powerrequirements of the iPod are too high for this unit.
No Music Track	There are no playable songs currently stored in the iPod. Input some music files compatible with iPod playback.
No Track	When there are no tracks in the category selected on the iPod. Select a different category.

6. SERVICE MODE

6.1 TEST MODE

■ Test Mode Functional Specification

① Test mode entry

In the power ON state, press the [ESC] key and [TEST] key in order of the Test mode remote control unit.

- OSD displays test mode.

② LD ON

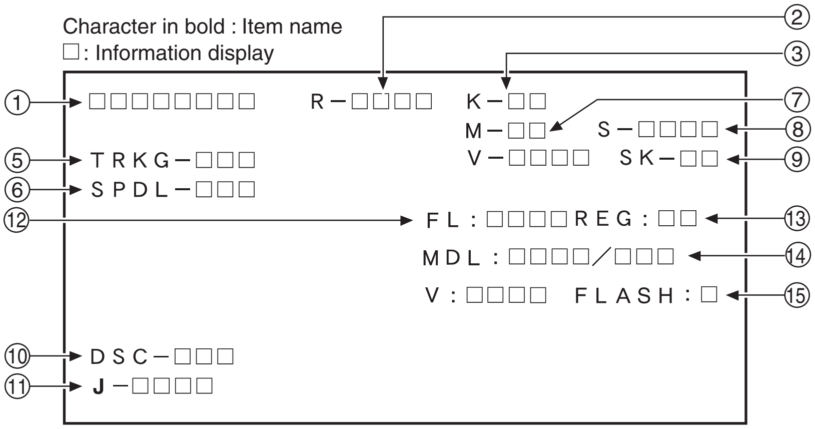
Enter the test mode.

DVD : Press the [TEST] and [1] keys in order, and turn on the laser diode (650 nm).
CD : Press the [TEST] and [4] keys in order, and turn on the laser diode (780 nm).

③ Release the Test mode

- Turn off the power.
- Press the [ESC] key of the remote control unit and reset it.

6.2 DISPLAY SPECIFICATION OF THE TEST MODE



① **Address indication**
The address being traced is displayed in number.
(as for the DVD, indication of decimal number is possible.)
DVD : ID indication (hexadecimal number, 8 digits)
[* * * * * * * *]
CD : ID indication [* * * * * * * *]

② **Code indication of remote control unit [R – * * * *]**
In case of double code, display a 2nd code.

③ **Main unit keycode indication [K – * *]**

⑤ **Tracking status [TRKG – * * *]**
Tracking on : [ON]
Tracking off : [OFF]

⑥ **Spindle status [SPDL – * * *]**
CLV : [CLV]
Off : [OFF]

⑦ **Mechanism (loading) position value [M – * *]**

Unknown	: [01] or [41]
Open state	: [04]
Close state	: [08]
During opening	: [12]
During closing	: [22]

⑧ **Slider position [S – * * * *]**
In Side Switch ON : [01]
In Side Switch OFF: [00]

⑨ **Output video system [V – * * * *]**
NTSC system : [NTSC]
PAL system : [PAL]
Automatic setting: [AUTO]
Scart terminal output [SK – * *]
(Display only the WY model which can do the output setting of scart terminal.)
VIDEO : [00]
S-VIDEO : [01]
RGB : [02]

⑩ **Disc sensing [DSC – * * *]**
The type of discs loaded is displayed.
[DVD], [CD]

⑪ **Jitter value [J – * * * *]**
Note: Don't use it.

⑫ **Version of the FL controller [FL: * * * *]**
Note: Don't use it.

⑬ **Region setting of the player [REG: *]**
Setting value : [1] to [6]

⑭ **Destination setting of the FL controller [MDL: * * * * / * * *]**
Four characters in the front represent code 01.
Three characters in the back represent the destination code.
J: Japan, K: North America, R: General Area,
LB: Taiwan, WY: Europe, TH: Thai, RAM: China

⑮ **Version of the flash ROM [V: * *. * *]**
Flash ROM size [FLASH = * *]
(Note: Don't use it.)

6.3 FUNCTIONAL SPECIFICATION OF THE SHORTCUT KEY

Only during normal playback, the following shortcut keys can be assigned by pressing a required key after pressing the ESC key of the remote control unit. To quit, press the ESC key

Command Contents	Conditions	Remote Control Key Name
Memory clear and region / revision indication		CLEAR (*1)
Average value measurement of DVD error rate		5 (*1)
CD error rate measurement		5 (*1)
Scart terminal output : VIDEO	Models equipped with Scart terminal	AUDIO
Scart terminal output : S-VIDEO		SUBTITLE
Scart terminal output : RGB		ANGLE
Progressive OFF	Only for progressive models	R_SKIP
Progressive ON		F_SKIP
HDMI Resolution : 1920 x 1080p		PROGRAM
FL indication of ID number		STEREO (*1)
ZOOM ON (x4)		ZOOM
Service mode indication (error rate indication, etc.)		CHP/TIM (*1)
Model information indication		CHAP (*1)
Title search Input mode IN Title No. input Search execution		SIDE A (*1) Numbers (*1) PLAY (*1)
Region confimation mode		A.MON (*1) Numbers (*1)
SACD 2ch area		⬆
SACD multi area		➡
SACD CD area		⬇

*1 : Service Remote Control Unit

- **Service mode indication (ESC + CHP/TIM keys)**

ID Address
The error rate is always displayed in exponential notation, e.g., *.* * e - *, for both DVDs and CDs.
EDC/ID/AV 1 error history (ID Address, EDC/ID Error, last eight errors)

- **Calculation of the average error rate (ESC + "5" [Service Remote Control Unit] keys)**

The average of the last eight error rates is calculated and indicated in exponential notation. After the calculation is completed, "OK" or "NG" is displayed. If "NG" is displayed, the disc tray will open (for both DVDs and CDs)
For DVDs: OK with 5.0e-4 or less, for CDs: OK with 7.6e-3 or less

- **Indication of model information (ESC + CHAP keys)**

For details, see 6.4.

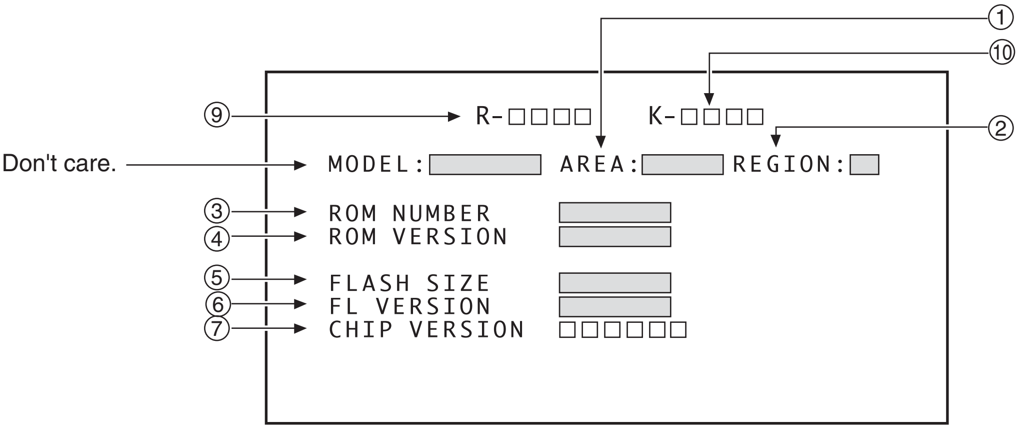
- **Region confirmation mode (ESC + A.MON [Service Remote Control Unit] + "1"-"6" [Service Remote Control Unit] keys)**

After you press the A.MON key while holding the ESC key pressed and then input the region number, if the number is different from that set in the unit, an error message is displayed, and the tray opens.

6.4 SPECIFICATION OF MODEL INFORMATION DISPLAY

To display model information : Press the ESC key then the CHAP key.
To close the model information display : Press the ESC key.

• Display contents



①
⑩
⑨
R-□□□□
K-□□□□
②
Don't care.
MODEL:
AREA:
REGION:
③
ROM NUMBER
④
ROM VERSION
⑤
FLASH SIZE
⑥
FL VERSION
⑦
CHIP VERSION
□□□□□□

Character in bold : Item name
□: Information display

① **Destination indication**
Display it according to model information set from the FL controller.
② **Region No.**
③ **Part number**
④ **ROM version**
⑤ **Flash size**

⑥ **FL controller version** (Note: Don’t use it.)
⑦ **CHIP VERSION**

⑨ **Remote control code**
⑩ **Key code of Main unit**

6.5 FUNCTIONAL SPECIFICATION OF THE SERVICE MODE

• Display during Service Mode

To enter Service Mode, press the CHP/TIM key while holding the ESC key pressed.
To quit, press the ESC key.

Service mode display

① ID Address
② Error rate (always displayed), in exponential notation

ERROR RATE : ∗ ∗ ∗ ∗ ∗ ∗ ∗
(∗ ∗ ∗ ∗)
↑ Number of error

- Calculation of the average error rate
  For DVDs: OK with 5.0e-4 or less, for CDs: OK with 7.6e-3 or less

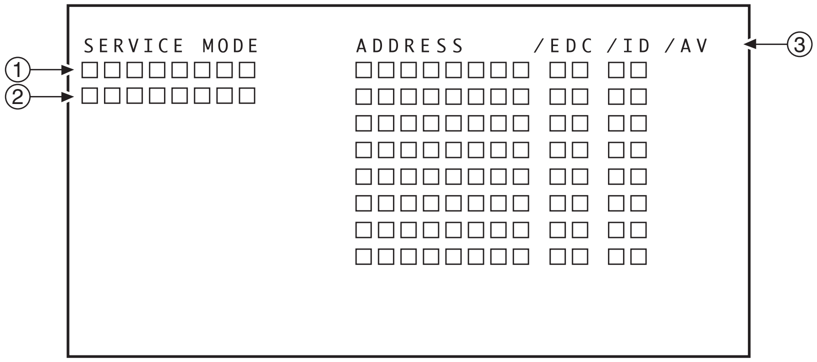
ex) For DVDs

• Step 1	• Step 2
△△e - □	△△e -4
△△e -6 : OK	3.0e -4 : OK
△△e -5 : OK	4.0e -4 : OK
△△e -4 : Refer to Step 2	5.0e -4 : OK
△△e -3 : NG	6.0e -4 : NG
△△e -2 : NG	7.0e -4 : NG

③ EDC/ID error history (ID Address, EDC/ID errors, last eight errors)

Note:
∗ Error of AV1 is not supported in this player.

Indication plan contents



Character in bold : Item name
□: Information display

6.6 SERVICE TEST MODE

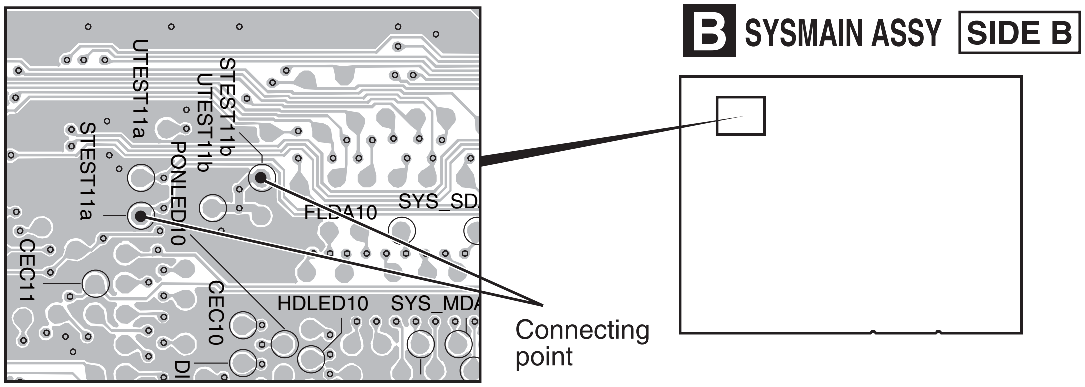
1. Configuration and conditions during checking

- Emergency shut down will not happen even if breakdown happens in the Service Test mode. (Just ignore it)
- POWER ON in test mode can be done in less than 1 minute even when emergency shut down happens when error is detected.
- Total power on time can be checked.

2. Switching to the Test Mode

- Test mode can also be entered in either of the following ways:
  1. Connect the power cord to the wall outlet with the STEST port (microcomputer terminal IC1001: pin 59) at HIGH (5 V).
     (See "Service Test Mode connecting point".)
  2. When power is on and VOL 0, Continually pressing the AUDIO INPUT key and POWER key on the front panel for more than 8 seconds.
     *In case of method 2, "5. Error" is not displayed and the unit will be shut down for an emergency till enter Test mode.

Service Test Mode connecting point



3. Indications on the FL display when Test mode is entered

Initial function is HDMI1.
The set will automatically power on and the following display will appear.

- The FL display during TEST MODE entry is different depending on whether NORMAL POWER OFF occurred before entering the TEST MODE or EMERGENCY SHUT DOWN occurred due to error detection.
- Listening mode will become Ext.Stereo (5ch Stereo) mode so that multichannel output can be obtained.
- Even if Display Mode is Auto Display setting, FL display is displayed during test modes.

[FL display]

Power On	POWER ON display
⇩	
Volume 20	Last Volume
⇩	
HDMI 1SERV	HDMI function

[After EEPROM error]
SYS BackUpERR

[After OVERCURRENT DETECTION1]
OC Error1

[After OVERCURRENT DETECTION2]
OC Error2

[After AMP error]
Protect E

[After DVD error]
DVD Protect

[After ABNORMAL TEMP. DETECTION]
Over Temp

∗ POWER OFF to get out from TEST MODE.
∗ When the TEST MODE is released, only the RAM which stores the error status will be initialized.
(RAM that can be set by the user will not initialized.)

4. Operation

- Basically, operation is the same as the NORMAL MODE.
  However, the following display will be indicated when function is changed to show that the TEST MODE is in operation.

[Function]	[display]	
DVD	DVD/CDSERV	(Only DVD model)
ipod	ipod SERV	
USB	USB SERV	(Only DVD model)
HDMI1	HDMI 1SERV	
HDMI2	HDMI 2SERV	
Digital1	Digital 1 SERV	
Digital2	Digital 2 SERV	
Digital3 (COAX)	Digital 3 SERV	
Analog (RCA)	AnalogSERV	(Except European model)
Analog (RCA)	Analog 1 SERV	(European model only)
Analog (SCART)	Analog 2 SSERV	(European model only)
FM/AM	Tuner SERV	
XM	XM RadiSERV	(Only North America model)
SIRIUS	SIRIUSSERV	(Only North America model)

5. Errors

- BREAKDOWN CATEGORY: Depends on the error displayed during POWER ON.

Error by backup failure

SYS BackUpERR	Backup error of the system microcomputer control

The following conditions are some possibilities:
1. Communication line to the EEPROM (or flash ROM) could either be disconnected or short.
2. The EEPROM (or flash ROM) IC itself could be faulty.

Error by over current detection

OC Error1
OC Error2

- If error display does not come on again when POWER ON in the NORMAL MODE, this could mean that the speaker terminal is short.
  1. (In a case when an error claimed by the customer could not be duplicated) The customer let the volume of the speakers increase when two poles of the speaker cable had been short-circuited.
  2. (In a case when an error claimed by the customer could not be duplicated) The customer let the conductor of the speaker cable touch the chassis of the main unit.
- If error display comes on, the following conditions are some possibilities:
  1. In the AMP Block, either one or more of the digital amp IC (TAS5142DDV) has broken down.
  2. Short-circuit occurred somewhere between the faulty IC(s) and speaker terminal.
  3. The SHUTDOWN line has either short to ground or disconnected somewhere between the faulty digital amp IC and system microcomputer.
  4. VS+12 voltage is too low. (Less than 10 V)

Error by hot temperature

Over Temp

- No abnormality if "OVERTEMP" display does not come on when POWER ON in the NORMAL MODE again. (The TEMP could have just gone up temporarily. Try reducing the volume)
- When the "OVERTEMP" display comes on again, the following conditions are some possibilities:
  1. In the AMP Block, either one or more of the digital amp IC (TAS5142DDV) has broken down.
  2. The XOTW line has either short to ground or disconnected somewhere between the faulty digital amp IC(s) and system microcomputer.
  3. Imperfect assembling of the heat sink
     (Make sure the screws are tightly fastened. Make sure the proper amount of silicon grease is applied.)

6. Total Power on Time Display

- If INPUT SELECT key is pushed continuously for 5 sec during POWER ON.

POWER ON TIME | 1 0 H 5 0 M | Indication for three seconds by a one shot

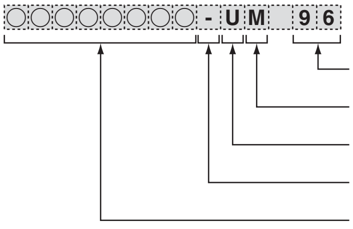
- Power-on time is always counted while the power is on, regardless of unit's functions and operations.
  However, it is not counted during Standby mode.
- The maximum countable power-on time is 255H59M (255 hours 59 minutes.) The indication will not advance beyond that.
- The accumulated power-on time basically cannot be cleared.

7. DSP Error Display

- During POWER ON, you can switch between DSP error display <=> Normal display when the SOUND key on the remote control is pressed.

6.7 DISPLAY SPECIFICATIONS OF DSP ERROR

[FL display]



96k (This character is displayed source FS)

DSP **M**UTE (This character is displayed while DSPMUTE is active)

DIR **U**NLOCK (This character is displayed while DIR is UNLOCK)

Space

The name of an error is displayed.

[Example]

ERR.0	DIR ERR -UM	Cannot receive data from the DIR --> Probably due to faulty DIR or bad connection
ERR.1	DSP ERR -UM	Cannot receive data from the DSP --> Faulty communication between DIR and DSP --> Probably due to faulty DSP or connection on the circuit board
ERR.2	HREQ ERR-UM	No HREQ return value --> Probably due to faulty DSP
ERR.3	DSP NG -UM	DSP error message --> Faulty communication between the DIR and DSP --> Probably due to faulty DSP
ERR.4	DECMUTE - M	DECMUTE on all the time --> Faulty communication between the DIR and DSP --> Probably due to faulty DSP
NO ERR (the source is 88.2/96/176.4/192 kHz.)	DSP OK - 96	96 kHz source play
NO ERR (the source is 32/44.1/48 kHz.)	DSP OK - 48	48 kHz source play

DSP error message mode

Press "SOUND" button in service test mode to show DSP error message displays.
Press "SOUND" again to select normal service test mode.
This means that the usual function of "SOUND" is not effective in the service test mode.

7. DISASSEMBLY

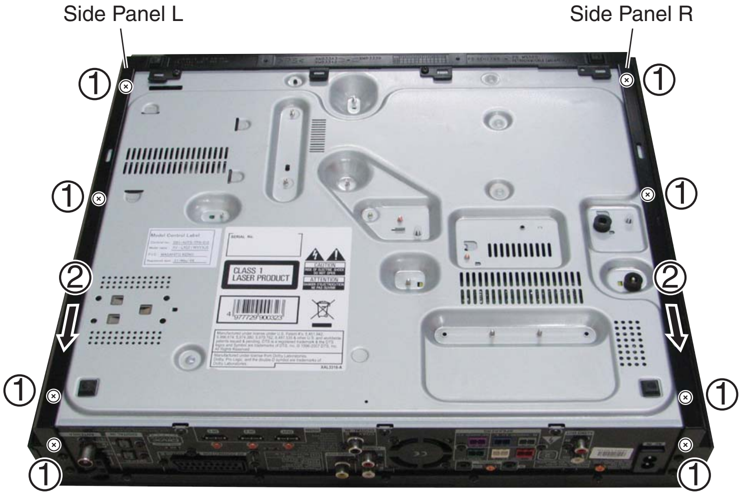
Note 1: Do NOT look directly into the pickup lens. The laser beam may cause eye injury.
Note 2: Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.
Note 3: For performing the diagnosis shown below, the following jigs for service is required:
- 17P FFC (GGD1606) x2
- 16P extension jig cable (GGD1607)

Disassembly

1 Top Cover Assy

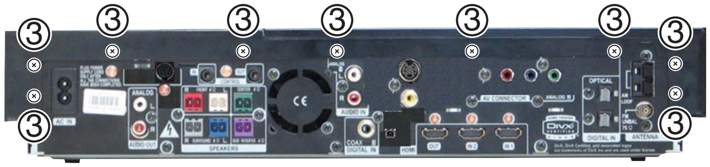
① Remove the eight screws.

② Remove the Side Panel L and Side Panel R in the direction of the rearward.



● **Bottom view**

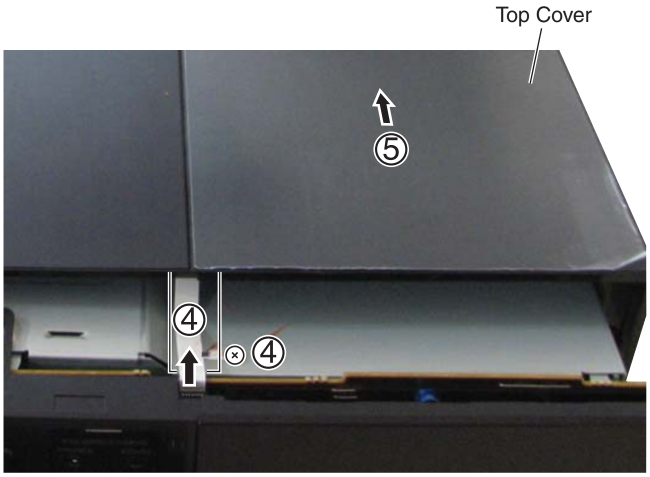
③ Remove the nine screws.



● **Rear view**

④ Disconnect the one flexible cable.
Remove the one screw.
Remove the SP Wire Tape Cushion.

⑤ Remove the Top Cover in the direction of the rearward.



2 Tray Panel

① Press the ⏻ STANDBY/ON button to turn on the power.

② Press the ⏏ OPEN/CLOSE button to open the Tray.

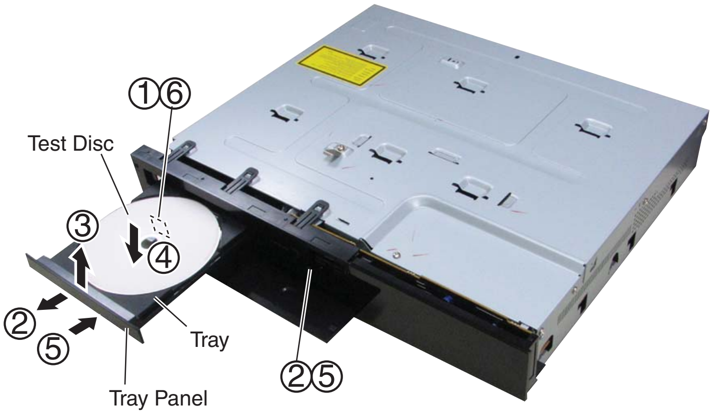
③ Remove the Tray Panel.

④ Set the Test Disc.

⑤ Press the ⏏ OPEN/CLOSE button to close the Tray. (Test Disc is clamped.)

⑥ Press the ⏻ STANDBY/ON button to turn off the power.

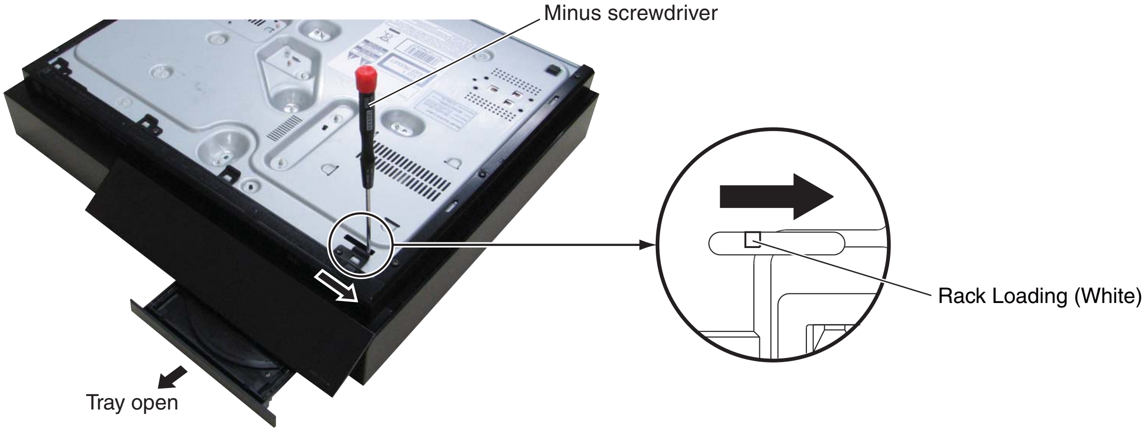
⑦ Pull out the Power cord.


①⑥
Test Disc
③
④
②
⑤
Tray
Tray Panel
②⑤

How to open the Tray when the power cannot be on

1. Slide the Rack Loading (White) toward the arrow direction by using a Minus screwdriver to release the lock.
2. Manually open the Tray.

NOTE:
Please strongly pushing Rack Loading (White) to release the lock because the Tray doesn't go out easily.


Minus screwdriver
Rack Loading (White)
Tray open

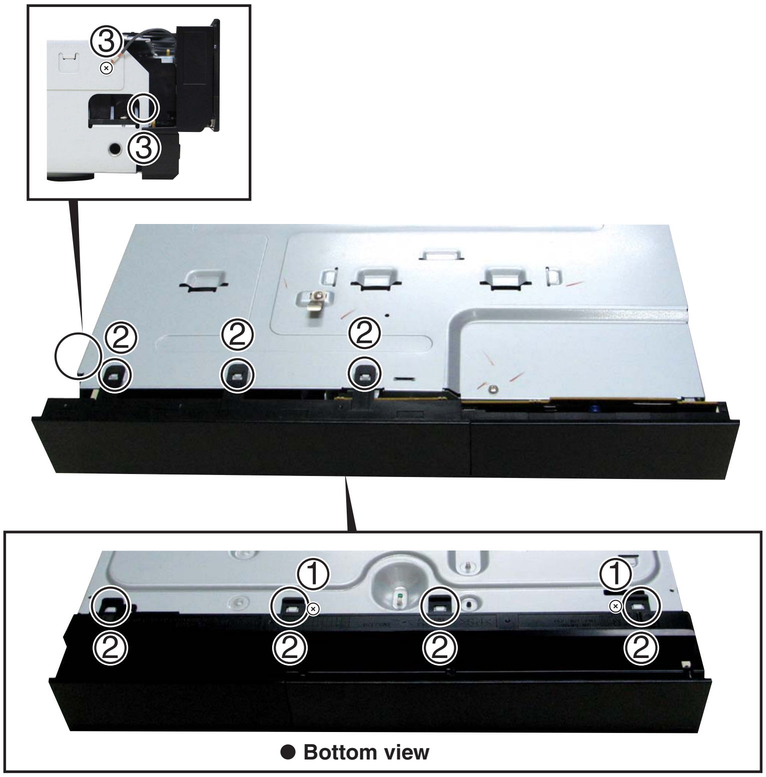
● **Bottom view**

3 Front Panel Section

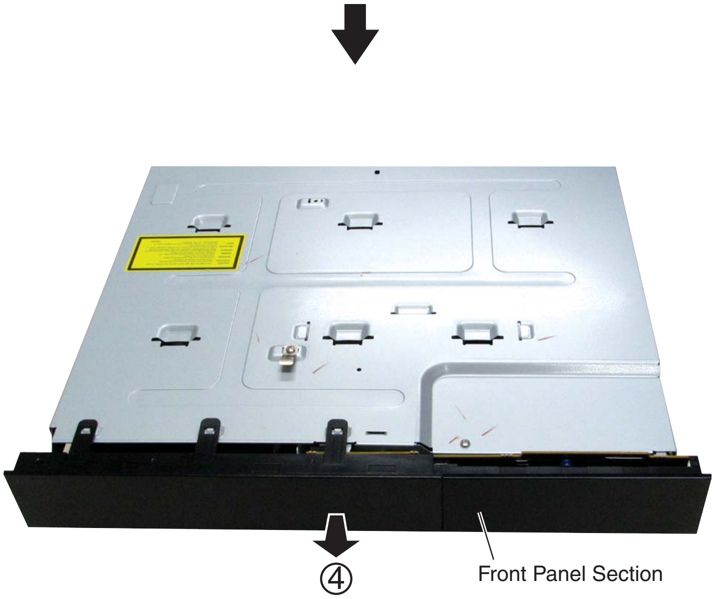
① Remove the two screws.

② Unhook the seven hooks.

③ Remove the one screw.
Cut the Binder.

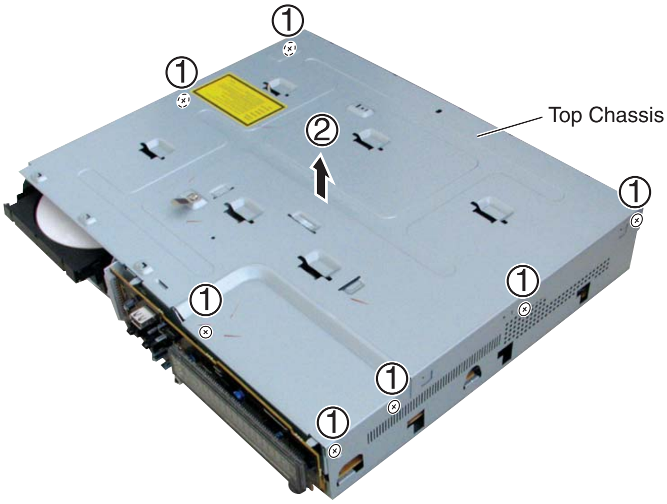

③
①
③
②
②
②
①
①
②
②
②
②
● Bottom view

④ Remove the Front Panel Section.


④
Front Panel Section

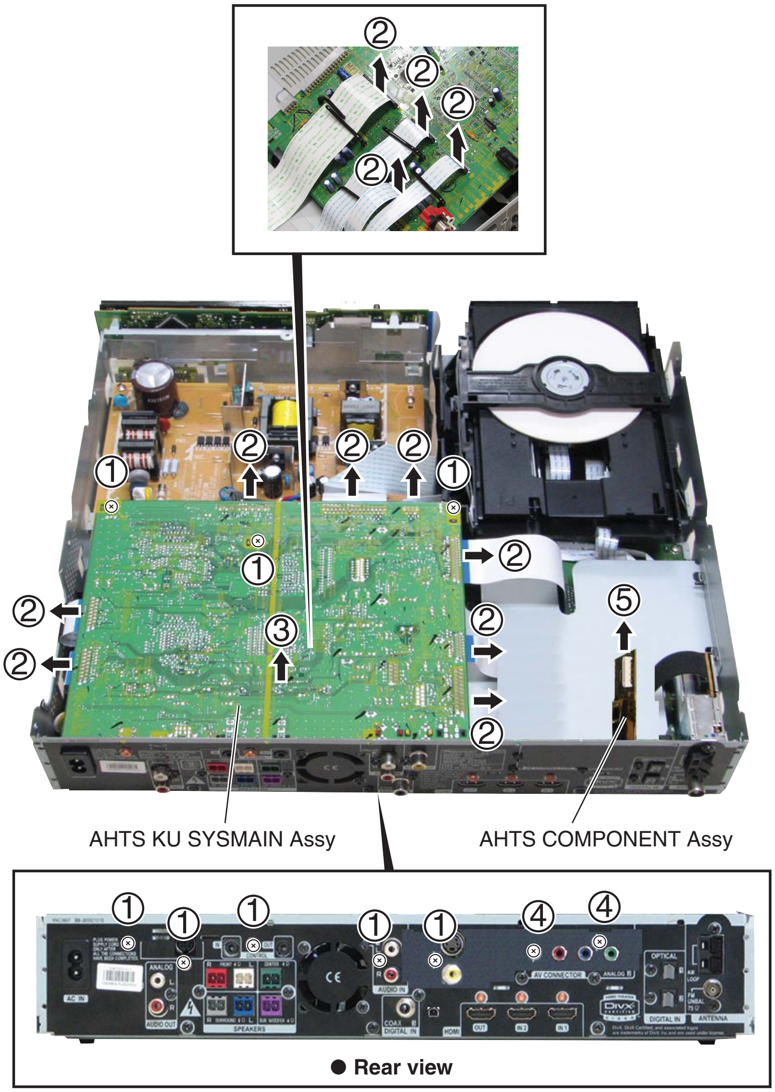
4 Top Chassis

① Remove the seven screws.
② Remove the Top Chassis.


①
①
②
Top Chassis
①
①
①
①
①

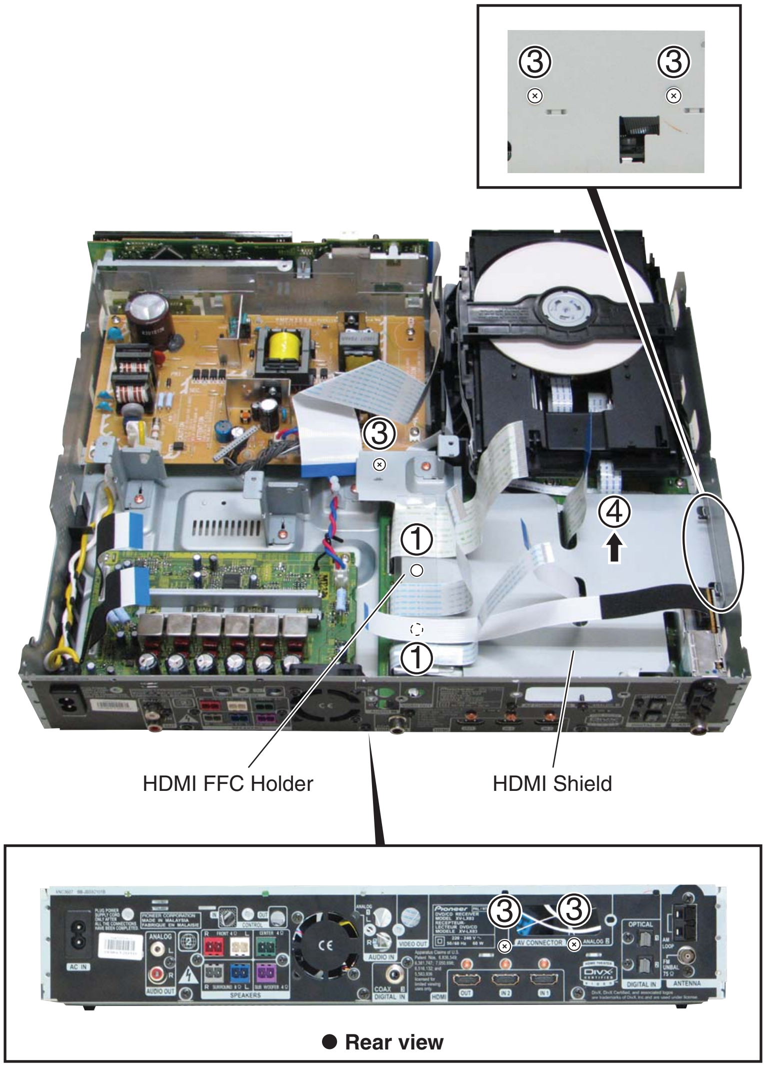
5 AHTS KU SYSMAIN Assy, AHTS COMPONENT Assy

① Remove the eight screws.
② Disconnect the eleven flexible cables and one connector.
③ Remove the AHTS KU SYSMAIN Assy.
④ Remove the two screws.
⑤ Remove the AHTS COMPONENTT Assy.


②
②
②
②
②
②
②
①
①
①
②
⑤
②
②
③
②
②
AHTS KU SYSMAIN Assy
AHTS COMPONENT Assy
①
①
①
①
①
④
④
● Rear view

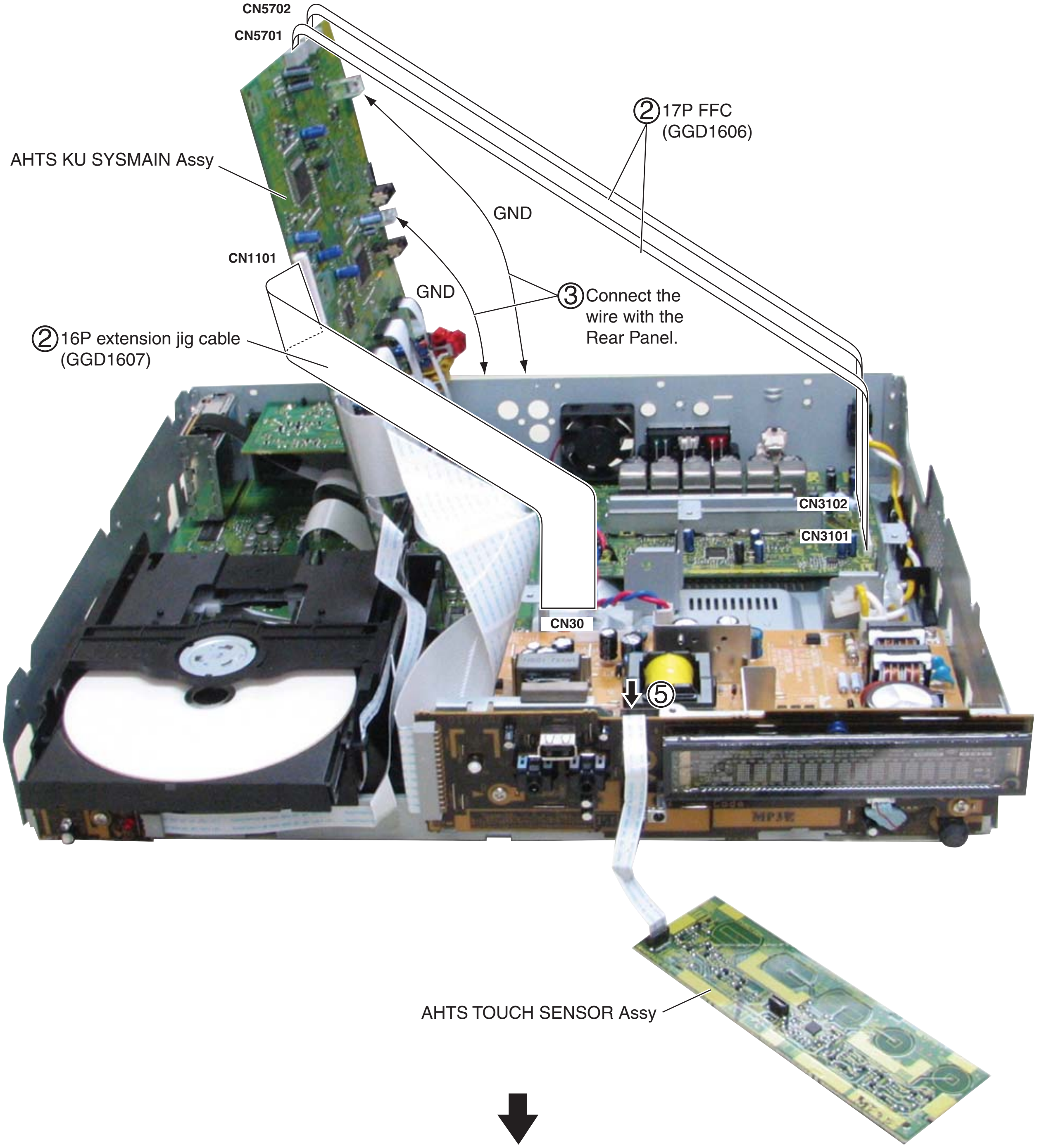
6 HDMI Shield

① Remove the two Push Rivet S Ps.
② Remove the HDMI FFC Holder.
③ Remove the five screws.
④ Remove the HDMI Shield.
⑤ Reassembling the AHTS KU SYSMAIN Assy.
⑥ Reassembling the AHTS COMPONENT Assy.


③
③
③
④
①
①
HDMI FFC Holder
HDMI Shield
③
③
● Rear view

7 Diagnosis

① Raise the AHTS KU SYSMAIN Assy.
② Connect the three extension jig cables.
③ Connect the wire with the Rear Panel.
④ Remove the AHTS TOUCH SENSOR Assy from the Top Cover.
⑤ Reassembling the AHTS TOUCH SENSOR Assy.
⑥ Arrange the unit as shown in the photo below.


CN5702
CN5701
② 17P FFC (GGD1606)
AHTS KU SYSMAIN Assy
GND
GND
CN1101
③ Connect the wire with the Rear Panel.
② 16P extension jig cable (GGD1607)
CN3102
CN3101
CN30
⑤
AHTS TOUCH SENSOR Assy

Diagnosis

8 DVD MECHA Assy

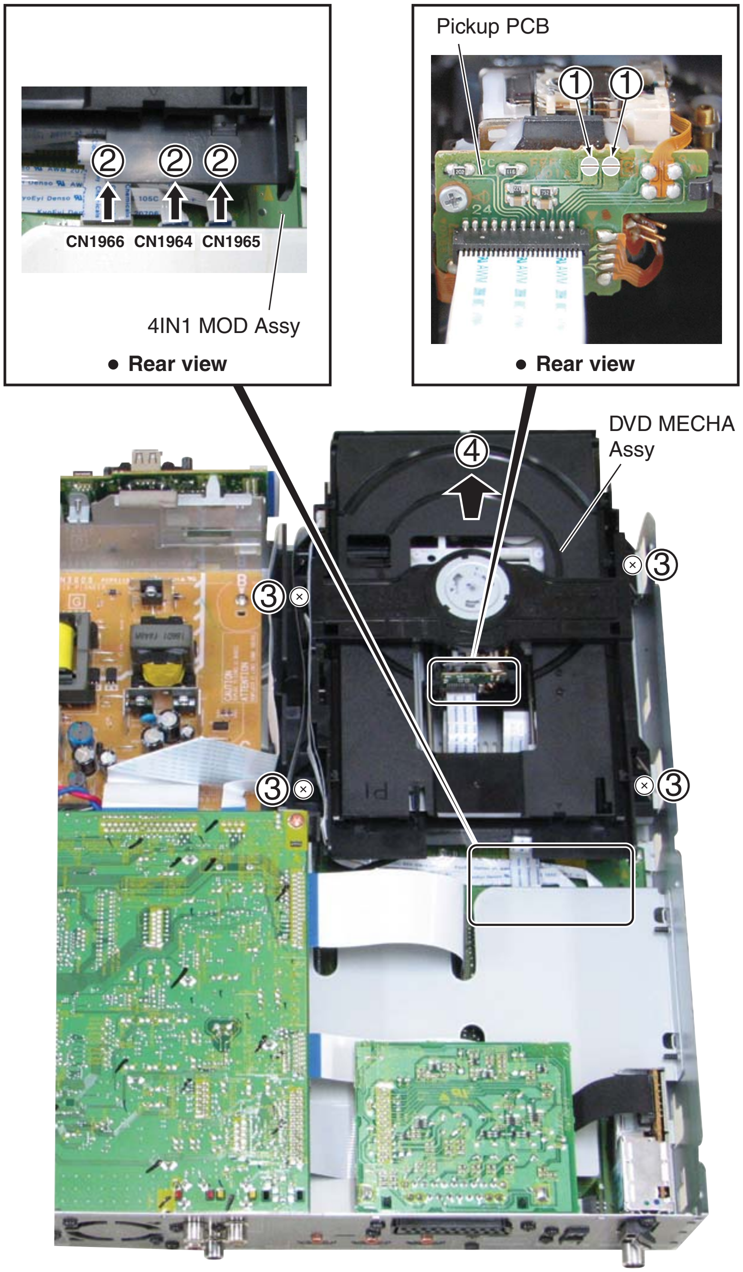
① Short-circuit two positions soldering.

Note: After replacement, connect the flexible cable, then remove the soldered joint (open).

② Disconnect the three flexible cables.

③ Remove the four screws.

④ Remove the DVD MECHA Assy.


②
②
②
CN1966
CN1964
CN1965
4IN1 MOD Assy
● Rear view
Pickup PCB
①
①
● Rear view
DVD MECHA Assy
④
③
③
③
③

Removal of DVD MECHA Assy Parts

NOTE

Disassemble only the DVD MECHA Assy parts listed here. Minute adjustments are needed if the disassembly is done. If the repair is needed except listed parts, replace the DVD MECHA Assy.

1: TRAY (Refer to Fig. 1-A)

1. Set the Tray opened. (Refer to the **DISC REMOVAL METHOD AT NO POWER SUPPLY**)
2. Unlock the 2 supports ① and draw it while sagging the Tray.

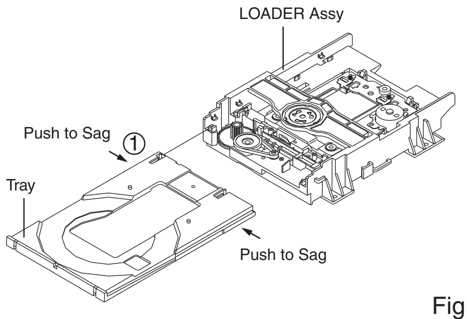

LOADER Assy
Push to Sag
①
Tray
Push to Sag

Fig. 1-A

NOTE

1. In case of the Tray installation, install them as the circled section of Fig. 1-B so that the each markers are met.

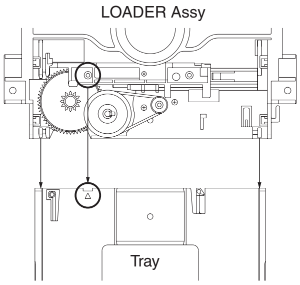
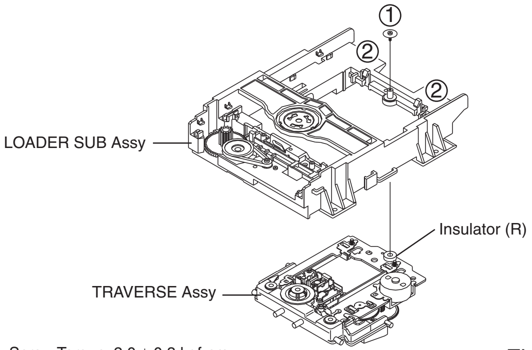

LOADER Assy
Tray

Fig. 1-B

2: TRAVERSE ASSY (Refer to Fig. 2-A)

1. Remove the screw ①.
2. Unlock the 2 supports ②.
3. Remove the Insulator (R) from the LOADER SUB Assy.
4. Remove the TRAVERSE Assy.


①
②
②
LOADER SUB Assy
Insulator (R)
TRAVERSE Assy

• Screw Torque: 2.0 ± 0.3 kgf•cm

Fig. 2-A

NOTE

1. In case of the TRAVERSE Assy, install it from (1) to (4) in order. **(Refer to Fig. 2-B)**
2. In case of the TRAVERSE Assy installation, hook the wire on the LOADER Assy as shown Fig. 2-C.

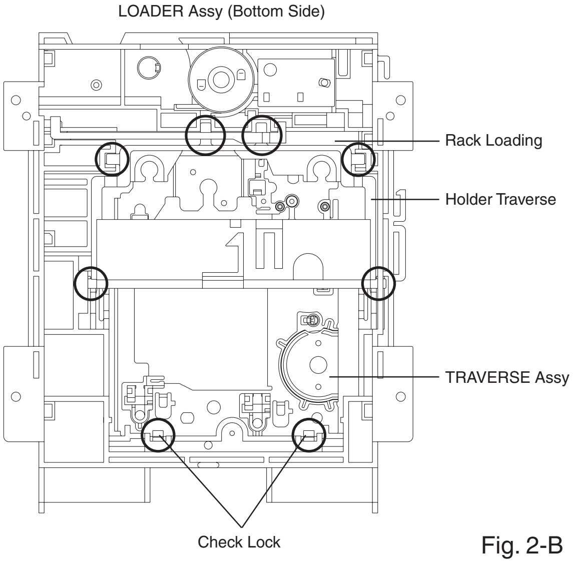

LOADER Assy (Bottom Side)
Rack Loading
Holder Traverse
TRAVERSE Assy
Check Lock

Fig. 2-B

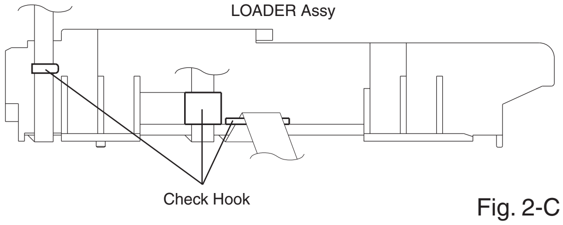
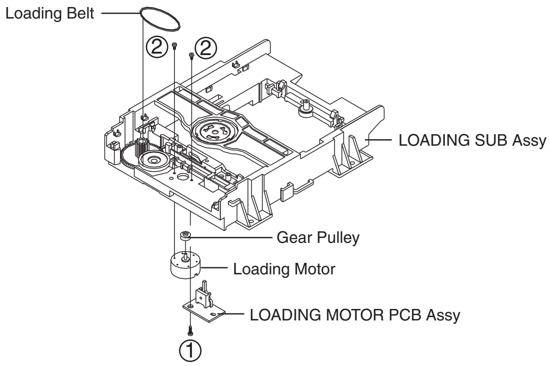

LOADER Assy
Check Hook

Fig. 2-C

3: LOADING MOTOR PCB Assy / LOADING BELT (Refer to Fig. 3-A)

1. Remove the Loading Belt.
2. Remove the screw ①.
3. Remove the LOADING MOTOR PCB Assy.
4. Remove the 2 screws ②.
5. Remove the Loading Motor.
6. Remove the Gear Pulley.


Loading Belt
②
②
LOADING SUB Assy
Gear Pulley
Loading Motor
LOADING MOTOR PCB Assy
①

• Screw Torque: 2.5 ± 0.3 kgf•cm (Screw ①)
• Screw Torque: 1.0 ± 0.3 kgf•cm (Screw ②)

Fig. 3-A

NOTE

1. In case of the Pulley Motor installation, check if the value of the Fig. 3-B is correct.
2. When installing the wire of the LOADING MOTOR PCB Assy, install it correctly as Fig. 3-C.
   Manual soldering conditions
   - Soldering temperature: 320 ± 20 °C
   - Soldering time: Within 3 seconds
   - Soldering combination: Sn - 3.0 Ag - 0.5 Cu
3. When installing the LOADING MOTOR PCB Assy, install itcorrectly as Fig. 3-D.
4. In case of the LOADING MOTOR PCB Assy installation, hook the wire on the LOADER SUB Assy as shown Fig. 3-E.

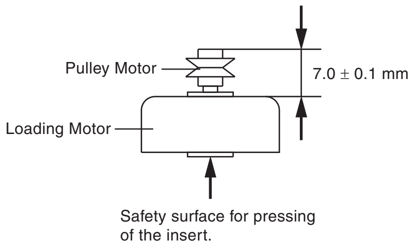

Pulley Motor
7.0 ± 0.1 mm
Loading Motor
Safety surface for pressing of the insert.

Fig. 3-B

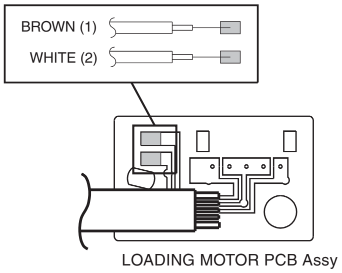

BROWN (1)
WHITE (2)
LOADING MOTOR PCB Assy

Fig. 3-C

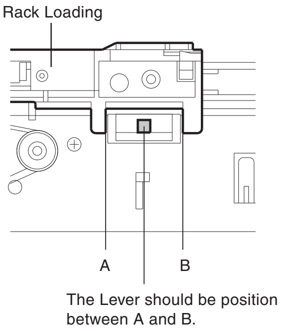

Rack Loading
A
B
The Lever should be position between A and B.

Fig. 3-D

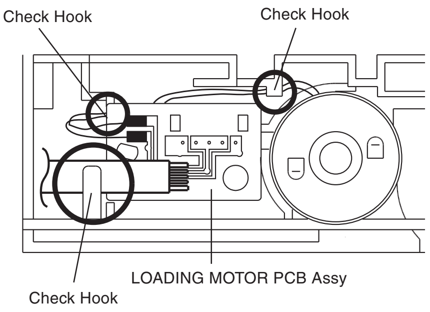

Check Hook
Check Hook
LOADING MOTOR PCB Assy
Check Hook

Fig. 3-E

4: RACK LOADING / MAIN GEAR / PULLEY GEAR (Refer to Fig. 4-A)

1. Unlock the support ② and remove the Gear Pulley.
2. Remove the Gear Main.
3. Press down the catcher ① and slide the Rack Loading.

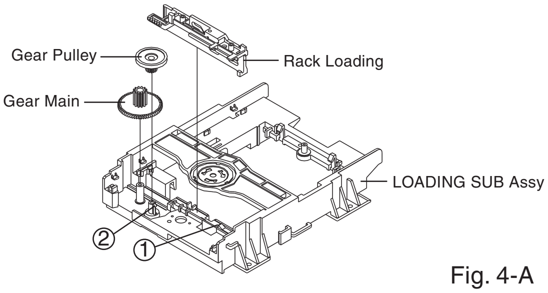

Gear Pulley
Rack Loading
Gear Main
LOADING SUB Assy
②
①

Fig. 4-A

NOTE

1. In case of the Rack Loading installation, hook the Rack Loading on the LOADER SUB Assy as shown Fig. 4-B.
2. When installing the Gear Main, take care the direction of up or down as shown Fig. 4-C.

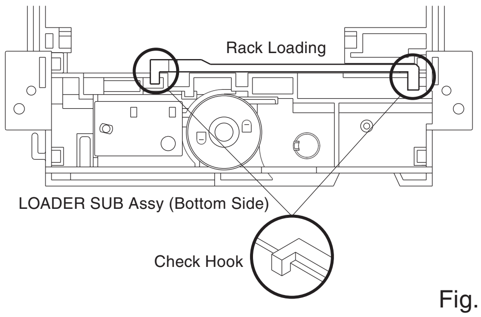

Rack Loading
LOADER SUB Assy (Bottom Side)
Check Hook

Fig. 4-B

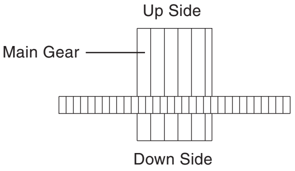

Up Side
Main Gear
Down Side

Fig. 4-C

5: CLAMPER ASSY (Refer to Fig. 5-A)

1. Press the Clamper and rotate the Plate Clamper clockwise, then unlock the 3 supports ①.
2. Remove the Plate Clamper, Magnet Clamper and Clamper.

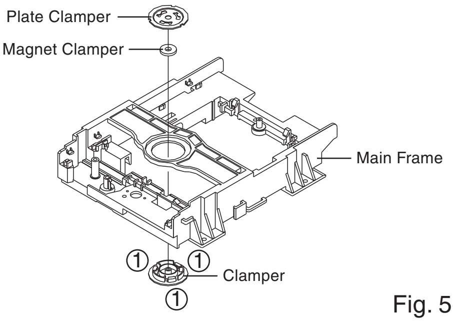


Plate Clamper
Magnet Clamper
Main Frame
①
①
Clamper
①

Fig. 5-A

NOTE

1. In case of the Clamper Assy installation, install correctly as Fig. 5-B.

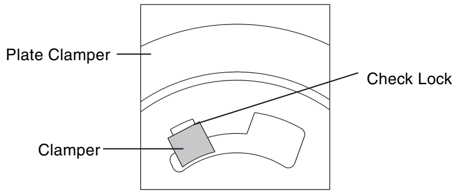


Plate Clamper
Check Lock
Clamper

Fig. 5-B

6: HOLDER TRAVERSE/INSULATOR (F)/INSULATOR (R) (Refer to Fig. 6-A)

1. Remove the Holder Traverse.
2. Remove the 2 Insulator (F).
3. Remove the Insulator (R).

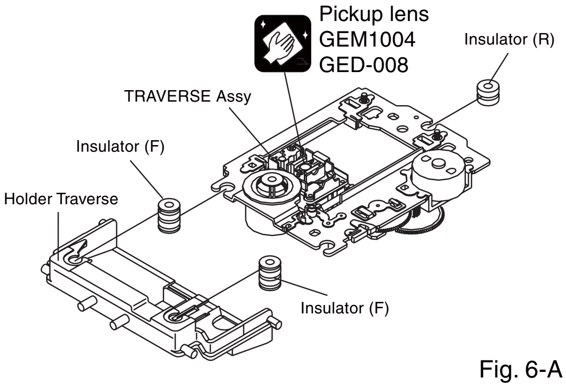

Pickup lens
GEM1004
GED-008
Insulator (R)
TRAVERSE Assy
Insulator (F)
Holder Traverse
Insulator (F)

Fig. 6-A

NOTE

1. In case of the Insulator (F) installation, install correctly as Fig. 6-B.

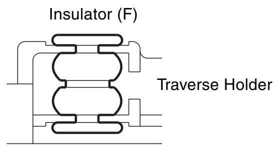
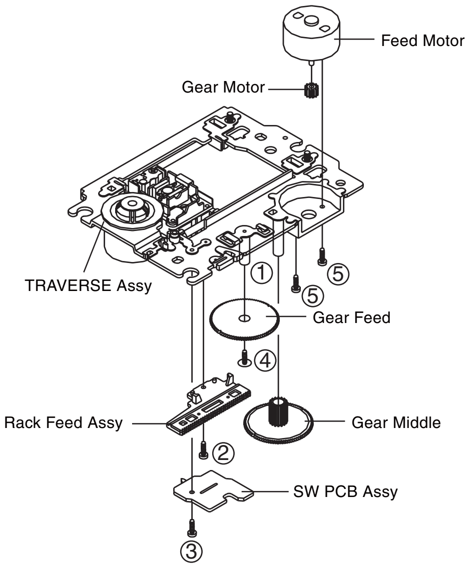

Insulator (F)
Traverse Holder

Fig. 6-B

7: SW PCB ASSY/GEAR MIDDLE/GEAR FEED/ RACK FEED ASSY/FEED MOTOR (Refer to Fig. 7-A)

1. Unlock the support ①.
2. Remove the Gear Middle.
3. Remove the screw ②.
4. Remove the Rack Feed Assy.
5. Remove the screw ③.
6. Remove the SW PCB Assy.
7. Remove the screw ④.
8. Remove the Gear Feed.
9. Remove the 2 screws ⑤.
10. Remove the Feed Motor.
11. Remove the Gear Motor.


Feed Motor
Gear Motor
TRAVERSE Assy
①
⑤
⑤
Gear Feed
④
Rack Feed Assy
Gear Middle
②
SW PCB Assy
③

- Screw Torque: 1.3 ± 0.3 kgf•cm (Screw ②)
- Screw Torque: 3.0 ± 0.3 kgf•cm (Screw ③)
- Screw Torque: 1.0 ± 0.3 kgf•cm (Screw ④, ⑤)

Fig. 7-A

NOTE

1. When installing the Rack Feed Assy, push both ends to align the teeth as shown Fig. 7-B. Then install it.
2. In case of the Gear Motor installation, check if the value of the Fig. 7-C is correct.
3. When installing the wire of the SW PCB Assy, install it correctly as Fig. 7-D.
   Manual soldering conditions
   - Soldering temperature: 320 ± 20 °C
   - Soldering time: Within 3 seconds
   - Soldering combination: Sn - 3.0 Ag - 0.5 Cu
4. After the assembly of the TRAVERSE Assy, hook the wire on the TRAVERSE Assy as shown Fig. 7-E.

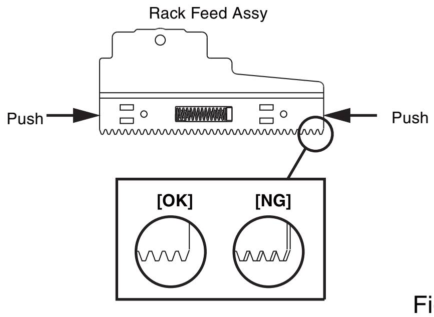

Rack Feed Assy
Push
Push
[OK]
[NG]

Fig. 7-B

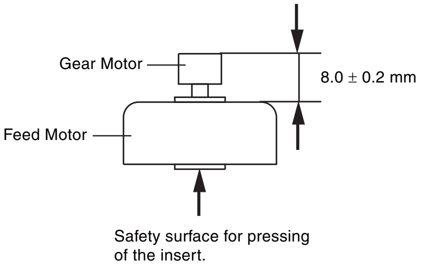

Gear Motor
8.0 ± 0.2 mm
Feed Motor
Safety surface for pressing
of the insert.

Fig. 7-C

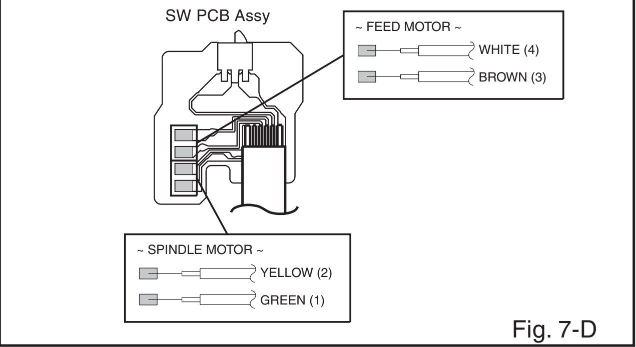
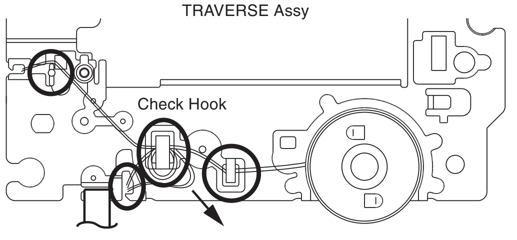

SW PCB Assy
~ FEED MOTOR ~
WHITE (4)
BROWN (3)
~ SPINDLE MOTOR ~
YELLOW (2)
GREEN (1)

Fig. 7-D


TRAVERSE Assy
Check Hook

• Loosen the wire in the direcion of the arrow.

Fig. 7-E

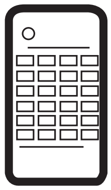
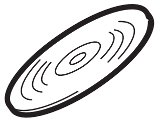
8. EACH SETTING AND ADJUSTMENT

8.1 ID NUMBER AND ID DATA SETTING

Caution:
For this product, for playback of a DVD-RW disc (CPRM), playback of a DVD-A (CPPM) and HDMI (HDCP) output, it is necessary that an individual ID number and ID data are set for each player. If the ID number and ID data be not properly set in the manner described below, future operations cannot be guaranteed. The ID number is written on the label at the rear panel of the player.
If there is no label, before downloading FLASH ROM, take note of the ID number set following the procedures outlined in "ID Number Confirmation Mode" on the next page.
Note: Enter ID numbers while the unit is in Stop mode so that the values set will be immediately written to the flash ROM.

Setting an ID number or ID data is required in the following case:
If "NO NUM" or "NO DATA" is displayed on the FL display for a few seconds immediately after the power to the player is turned on or during Stop mode.

JIGS AND MEASURING INSTRUMENTS

 Service Remote Control Unit [GGF1381]	 DVD Data Disc [GGV1326]

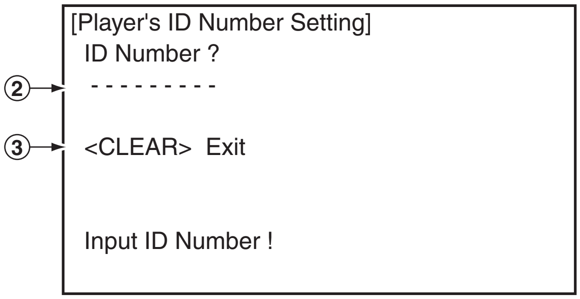
ID Number Input Mode

① To enter ID Number Input Mode, with no ID number set, such as in a case of immediately after upgrading the firmware, press the ESC key then the STEREO key.

Note: If a previous ID number and ID data, such as a factory-preset ID number and ID data, are maintained, the unit enters ID Number Confirmation Mode when the above keys are pressed. However, if only an ID number is maintained, the unit enters ID Data Input Mode.

② Enter a 9-digit ID number. The ID number is also displayed on the FL display.

③ By pressing the CLEAR key without having input a number, you can exit this mode. Each press of this key after a number has been input deletes one digit.

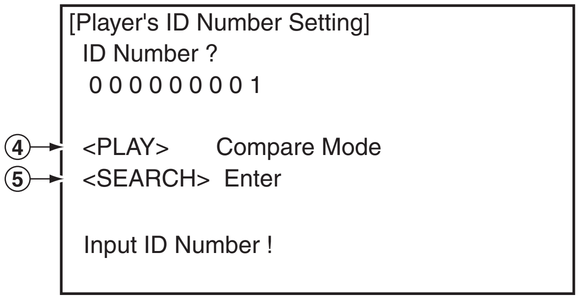


```
[Player's ID Number Setting]
  ID Number ?
   - - - - - - - - -

  <CLEAR>  Exit


  Input ID Number !
```

④ After entering all 9 digits, if you press the PLAY key, the unit enters Compare mode. Enter the same ID number again. Only if your two input numbers match, the ID number is set. Compare mode helps eliminate mistyping of the ID number.

Note: If you press the PLAY button before inputting a 9-digit ID number, the unit returns to Step ② without doing anything else.

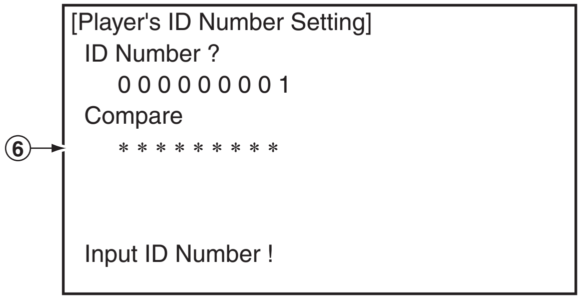
⑤ After entering all 9 digits, if you press the SEARCH key, the unit unconditionally sets the input number as the ID number. Then the unit automatically enters Player's Data Input Mode. (The SEARCH key is not accepted after all 9 digits have been entered.)



```
[Player's ID Number Setting]
  ID Number ?
   0 0 0 0 0 0 0 0 1

  <PLAY>       Compare Mode
  <SEARCH>  Enter

  Input ID Number !
```

⑥ This display appears when the PLAY key is pressed in Step ④. Enter a 9-digit number to compare. The number is also displayed on the FL display.

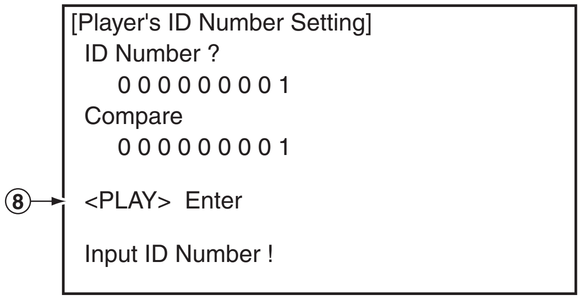
⑦ By pressing the CLEAR key without having input a number, the unit returns to Step ② without doing anything else. Each press of this key after a number has been input deletes one digit.



```
[Player's ID Number Setting]
  ID Number ?
     0 0 0 0 0 0 0 0 1
  Compare
     * * * * * * * * *



  Input ID Number !
```

⑧ After entering all 9 digits, if you press the PLAY key, the unit compares the numbers input in Steps ② and ⑥, and only if the numbers match, that number is set as the ID. Then the unit automatically enters ID DATA Input Mode. If the numbers do not match, the disc tray is opened, and the unit exits ID Number Input Mode.

Note: If you press the PLAY button before inputting a 9-digit ID number, the unit returns to Step ⑥ without doing anything else.



```
[Player's ID Number Setting]
  ID Number ?
     0 0 0 0 0 0 0 0 1
  Compare
     0 0 0 0 0 0 0 0 1

  <PLAY>  Enter

  Input ID Number !
```

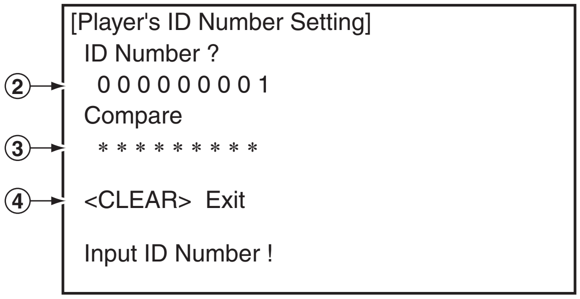
ID Number Confirmation Mode

① To enter ID Number Confirmation Mode after the ID number and the ID data are set, press the ESC key then the STEREO key.

② The ID number already set is displayed. (It is also displayed on the FL display.)

③ Enter a 9-digit number for comparison. This is not required when you only wish to check the ID number visually. (The number is also displayed on the FL display.)

④ By pressing the CLEAR key without having input a number, you can exit this mode. Each press of this key after a number has been input deletes one digit.

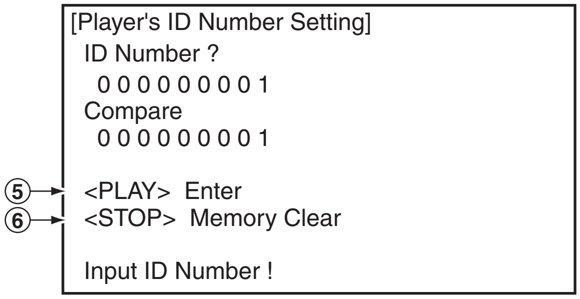


```
[Player's ID Number Setting]
  ID Number ?
    0 0 0 0 0 0 0 0 1
  Compare
    * * * * * * * * *

  <CLEAR>  Exit

  Input ID Number !
```

⑤ After entering all 9 digits, if you press the PLAY key, the unit compares the number entered in Step ② with the ID number set, and only if the numbers match, the unit automatically exits ID Number Confirmation Mode. If an ID data has not been entered, the unit enters ID DATA Input Mode. If the numbers do not match, the disc tray is opened, and the unit exits ID Number Confirmation Mode.

Note: If you press the PLAY button before inputting a 9-digit ID number, the unit returns to Step ④ without doing anything else.

⑥ After entering all 9 digits, if you press the STOP key, the unit compares the number entered in Step ③ with the ID number set, and only if the numbers match, the unit automatically deletes the ID number and exits this mode. If the numbers do not match, the disc tray is opened, and the unit exits this mode. (The STOP key is not accepted after all 9 digits have been entered.)



```
[Player's ID Number Setting]
  ID Number ?
    0 0 0 0 0 0 0 0 1
  Compare
    0 0 0 0 0 0 0 0 1

  <PLAY>  Enter
  <STOP>  Memory Clear

  Input ID Number !
```

• Indication of an ID number already set

An ID number already set is displayed in the following cases:

1) When the ESC key then the CLEAR key are pressed, user settings are cleared, then the ID number set is displayed on the screen. In this case, the ID number is not displayed on the FL display.
2) When the unit enters ID Number Confirmation Mode by your pressing the ESC key then the CLEAR key, the ID number set is displayed. In this case, the ID number is also displayed on the FL display.
   If you only need to confirm the ID number, you can exit this mode by pressing the CLEAR key or turning off the power.

• Indication when no ID number is set

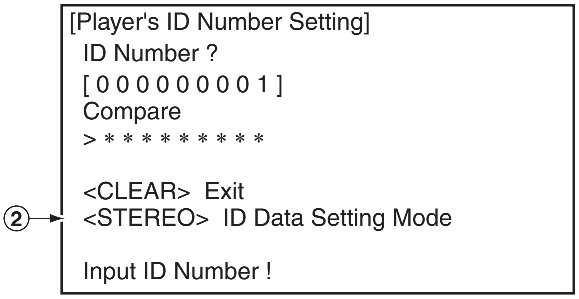
If no ID number is set, the message "No NUM" flashes on the screen and FL display for a few seconds after the power is turned on or during Stop mode.

ID DATA Input Mode

NOTE: Be sure to use a specified DVD (ID) DATA DISC.

① To enter ID DATA Input Mode, with the ID number set, press the ESC key then the STEREO key.

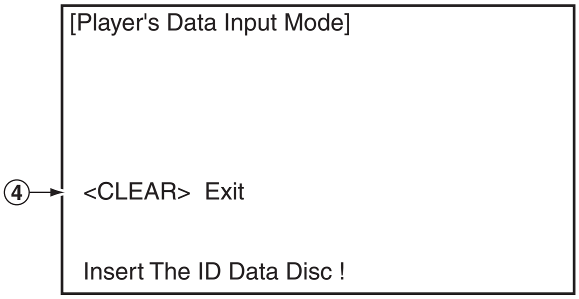
② When the STEREO key is pressed, the unit enters ID DATA Input Mode.



```
[Player's ID Number Setting]
  ID Number ?
  [ 0 0 0 0 0 0 0 0 1 ]
  Compare
  > * * * * * * * * *

  <CLEAR>  Exit
  <STEREO>  ID Data Setting Mode

  Input ID Number !
```

③ If the DVD DATA DISC is loaded in this mode, the unit automatically starts reading the data.
(If the DVD DATA DISC has already been loaded, the unit does not start reading the data. In this case, open then close the tray.)

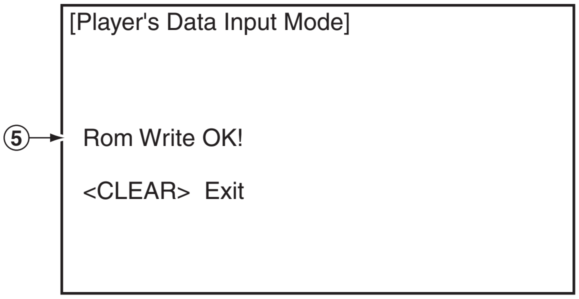
④ To exit this mode, press the CLEAR key. While data are being read from the DVD DATA DISC, you cannot exit this mode.



```
[Player's Data Input Mode]

  <CLEAR>  Exit

  Insert The ID Data Disc !
```

⑤ When writing of the data read from the disc to flash ROM is completed, "Rom Write OK!" is displayed. After seeing this message, you can exit this mode by pressing the CLEAR key.

Note: Whether or not the data have been written to flash ROM can be confirmed by watching for the message "Rom Write OK!" being displayed after the disc is read.



```
[Player's Data Input Mode]

  Rom Write OK!

  <CLEAR>  Exit
```

⑥ If the data cannot be read from the disc, the unit will be exited ID Data Input Mode and proceed to the display of "**Pioneer**" logo.

• Indication when the data have not been set
If no ID data are set after the ID number is changed, the message "NO DATA" flashes on the screen and FL display for a few seconds after the power is turned on or during Stop mode.

8.2 HOW TO CONFIRM THE VERSION OF THE FIRMWARE

■ Indication of version

[Purpose]

The version and destination information of software for each microcomputer is indicated.

[How to enter/exit]

Keep pressing the INPUT SELECT for 8 seconds while the power is turned ON.

[Basic operations]

FL Display	Duration (sec.)	Devices that can be considered generally normal, with the corresponding indications
KU SYS ****	3	System microcomputer
AMP ****	3	AMP microcomputer
DSPF ****	3	DSP FIRM
HDMI ****	3	HDMI microcomputer
iPod ****	3	iPod FIRM
SAT ****	3	Digital Radio microcomputer (KU only)
SUB ****	3	DVD SUB microcomputer (HTS only)
Normal display		

[Note]

The destination information is indicated at the same time when the System u-com version is indicated.
North America: KU, Europe: MY, General: DD, China: CN, Japan: J

8.3 HOW TO UPDATE THE FIRMWARE

■ System, HDMI and AMP microcomputer

[Purpose]

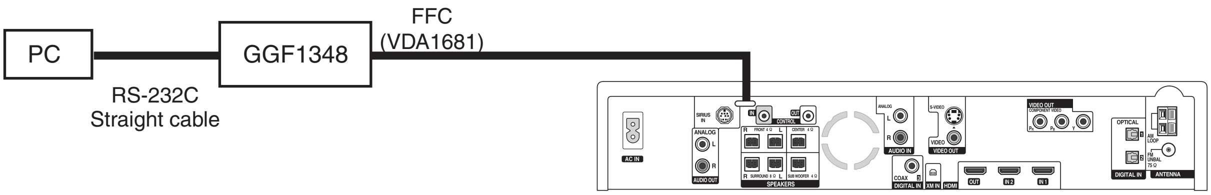
Refer to this section when updating the firmware of each microcomputer is required by the service information, etc.

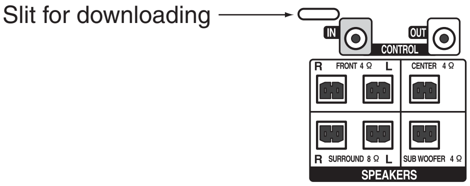
[Necessary Tools]

- PC with RS232C port
- RS-232C straight cable
  (9pin female ↔ 25pin male)
- RS-232C Interface jig : GGF1348
- 7 pin FFC : VDA1681
- Updating program : UFU.exe
- Firmware file : “.mot” file

[Connections]

Connect as shown in the figure below.


PC
GGF1348
FFC
(VDA1681)
RS-232C
Straight cable

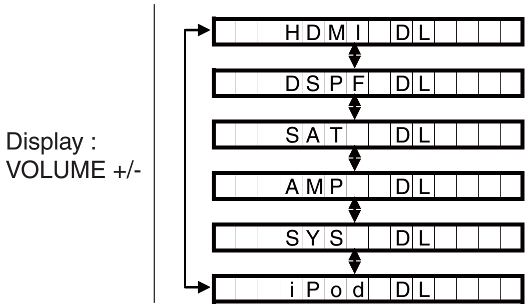

Slit for downloading
IN
OUT
CONTROL
R FRONT 4 Ω L
CENTER 4 Ω
R SURROUND 8 Ω L
SUB WOOFER 4 Ω
SPEAKERS

[Note]

Do NOT disconnect the AC power cords of this unit and the PC during a downloading.

[Procedures]

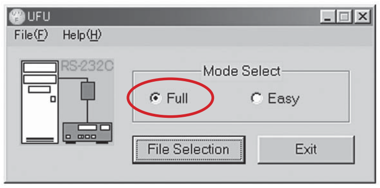
1. Set the main volume level to "0" then turn off the unit (Standby mode).
2. Connect the PC and the unit as shown in "Connections".
3. Keep pressing both the VOL- and STANDBY/ON buttons for 2 seconds or more during the POWER ON state. Then, the download menu appears.
   Using the VOL+/- button, select the microcomputer to be downloaded, and press the FUNCTION button.
   → "DownLoading" is displayed and the POWER LED (blue) flashes.



* DSPF cannot be updated by the above procedure (RS232C). Do not select it.

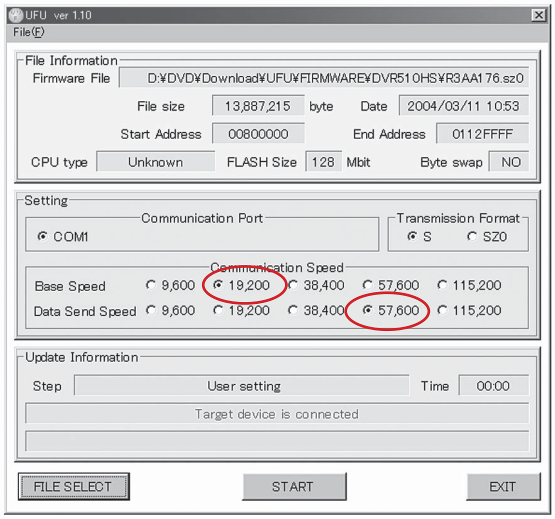
* Do not select SAT and iPod.

4. Double-click the "UFU.exe".
5. Check that "Full" is selected in Mode Select.



Mode Select: ● Full ○ Easy

6. Select the firmware file (.mot file) for updating each ucom.
   Note: Do NOT download the firmware file for other ucom.
7. Select the communication speed.
   - Basic speed: 19200
   - Data transfer speed: 57600



File Information

Firmware File: D:¥DVD¥Download¥UFU¥FIRMWARE¥DVR510HS¥R3AA176.sz0

File size: 13,887,215 byte

Date: 2004/03/11 10:53

Start Address: 00800000

End Address: 0112FFFF

CPU type: Unknown

FLASH Size: 128 Mbit

Byte swap: NO

Setting

Communication Port: ● COM1

Transmission Format: ● S ○ SZ0

Communication Speed

Base Speed: ○ 9,600 ● 19,200 ○ 38,400 ○ 57,600 ○ 115,200

Data Send Speed: ○ 9,600 ○ 19,200 ○ 38,400 ● 57,600 ○ 115,200

Update Information

Step: User setting

Time: 00:00

Target device is connected

8. Click the "START" button.
9. "Completed" is displayed on the "UFU.exe" window about 5 minute later.
10. Disconnect the AC power cord of the unit.
    After downloading is completed on UFU, disconnect the AC plug. (Wait for several seconds after the AC plug is disconnected.)
    When a plurality of microcomputers need to be burned, repeat the above steps (1) to (7).
11. After updating of all microcomputers is completed, press the POWER button to set the unit in the standby state.
12. Check the version.
    Please refer to "8.2 HOW TO CONFIRM THE VERSION OF THE FIRMWARE" and check that the version has been changed to a new one.

[Note]

All of memory will be automatically cleared after downloading is completed.

8.4 HOW TO UPDATE THE DSP FLASH ROM BY PLAYING BACK A CD

■ DSP FLASH ROM

[Purpose]

Refer to this section when updating the DSP flash ROM firmware is required by the service information, etc.
It is able to update the DSP flash ROM firmware by playing back a CD-R which is recorded a DSP firmware (.wav file) via digital connection.

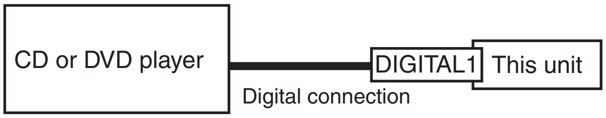
[Necessary Tools]

- DVD player
- Optical cable
- Update disc (CD-R disc)

Note:
Please use DVD player based on MTK system (DV-270, 370, 373, 575K, 280, 380, 383, etc.),Mitsubishi system (DV-59AVi, 868AVi, S969AVi, 668AVi, etc.) and Fujitsu system (DV-343, 444, 545, etc.).
DO NOT use DVD player based on ST system (DV-353, 454, 250, 400, 555K, 260, 363, 464, 466, 563, etc.).
The factory confirmed that DVD players based on ST system cannot send the correct data to the receiver.
You can check the base system of our DVD players on the firmware version list at PSN web (Niis).

[Connections]

Connect as shown in the figure below.



[Preparations]

Burn the DSP flash ROM firmware (.wav file) to a CD-R disc using commercially available burning software.
It is necessary to select the writing format to "For music player", not "For PC data".

Note:
Depending on a burning software, data on a CD-R may not be worked for updating the DSP flash ROM.
If the “MCACC segment” does not flash when playing back a update disc, the disc is not able to use for updating.
Burn the DSP flash ROM firmware to a CD-R disc, using other burning software.

[Note]

- Do NOT disconnect the AC power cords of this unit and the CD/DVD player during a updating.
- When updating is completed, the flashing FL display gets to stay illuminated.
  If the flashing FL display doesn't get to stay illuminated, updating has not been completed correctly. Be sure to perform the updating procedures again.

[Procedures]

1. Check the version of the DSP flash ROM.
   Please refer to "8.2 HOW TO CONFIRM THE VERSION OF THE FIRMWARE".

2. Connect a DVD player
   Connect the DVD player for updating to DIGITAL1 input jack of this unit.

3. To get in the downloading mode
   Turn on the AC Power of the main unit and set it in the POWER ON state.
   Keep pressing both the VOL- and STANDBY/ON buttons for 2 seconds or more during the POWER ON state.
   Then, the download menu appears.
   Press the VOL+/- button to select "DSPF DL". Then, press the FUNCTION button.
   * The download menu appears only when VOL 0 is set.

   ⇒ "DownLoading" is displayed on the FL, and the POWER LED (blue) flashes.

[Procedures]

4. To start downloading
   Place the upgrade CD-R on the tray of the DVD player and press the PLAY button.
   Download time is about 2 and a half minutes.
   * Do Not to turn off the power or stop CD playback during download.

   ⇒ In several seconds after playback of Trk.1 starts, "MCACC" segment of FL will start flashing.

5. To end downloading
   When downloading is completed (when some of Trk2 is played back after the playback of Trk1 ends), the "MCACC" segment gets to stay illuminated. Turn off the power of P3 and stop the replay of CD-ROM.
   Now, the upgrade of DSP is completed.

6. Execute Memory Clear
   Press the POWER button to set it in the standby state.

7. Check the version of the DSP flash ROM.
   Please refer to "8.2 HOW TO CONFIRM THE VERSION OF THE FIRMWARE" and check that the version has been changed to a new one.

A

B

C

D

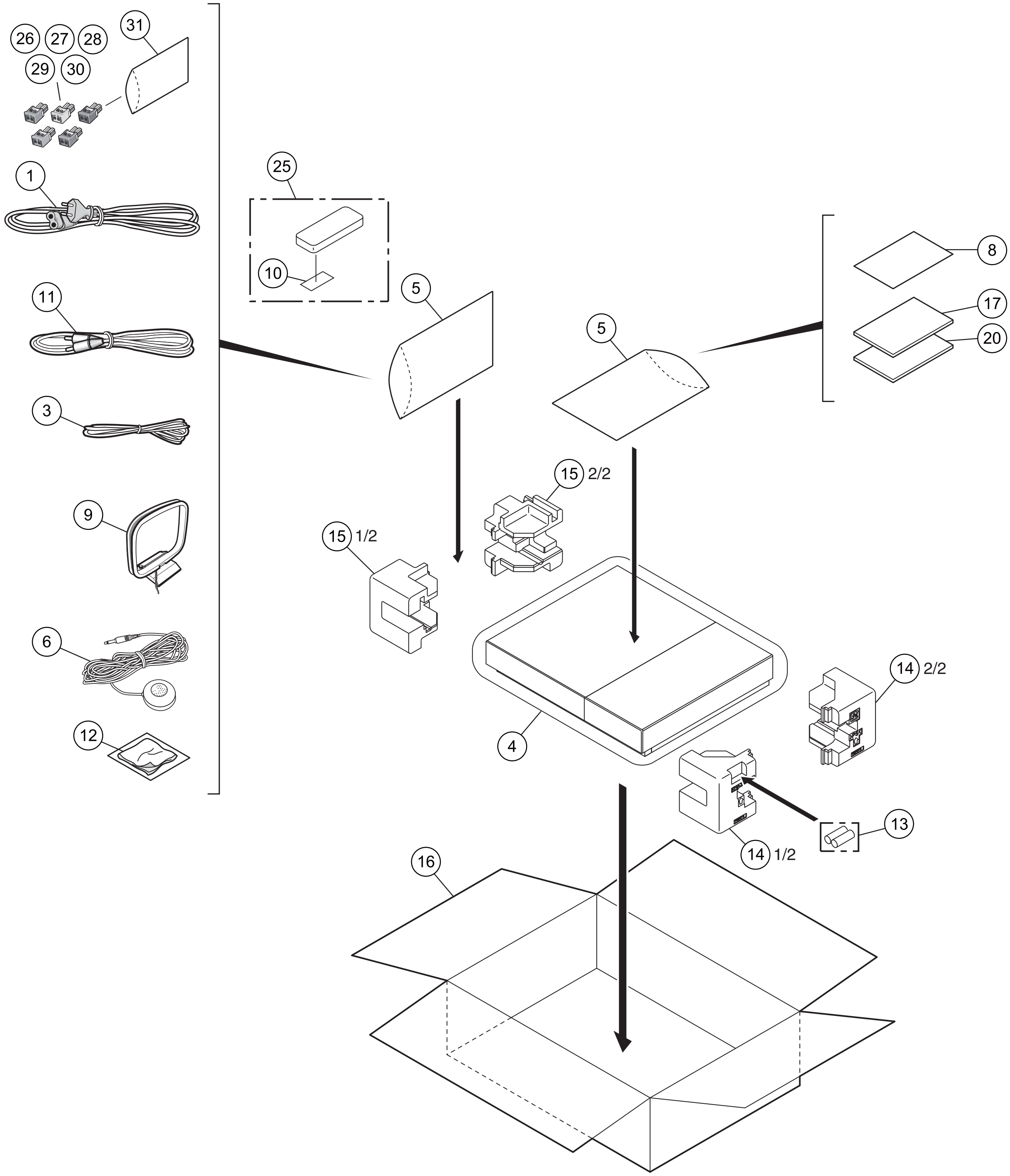
E

F

9. EXPLODED VIEWS AND PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on product are used for disassembly.*
- *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)*

9.1 PACKING SECTION


26
27
28
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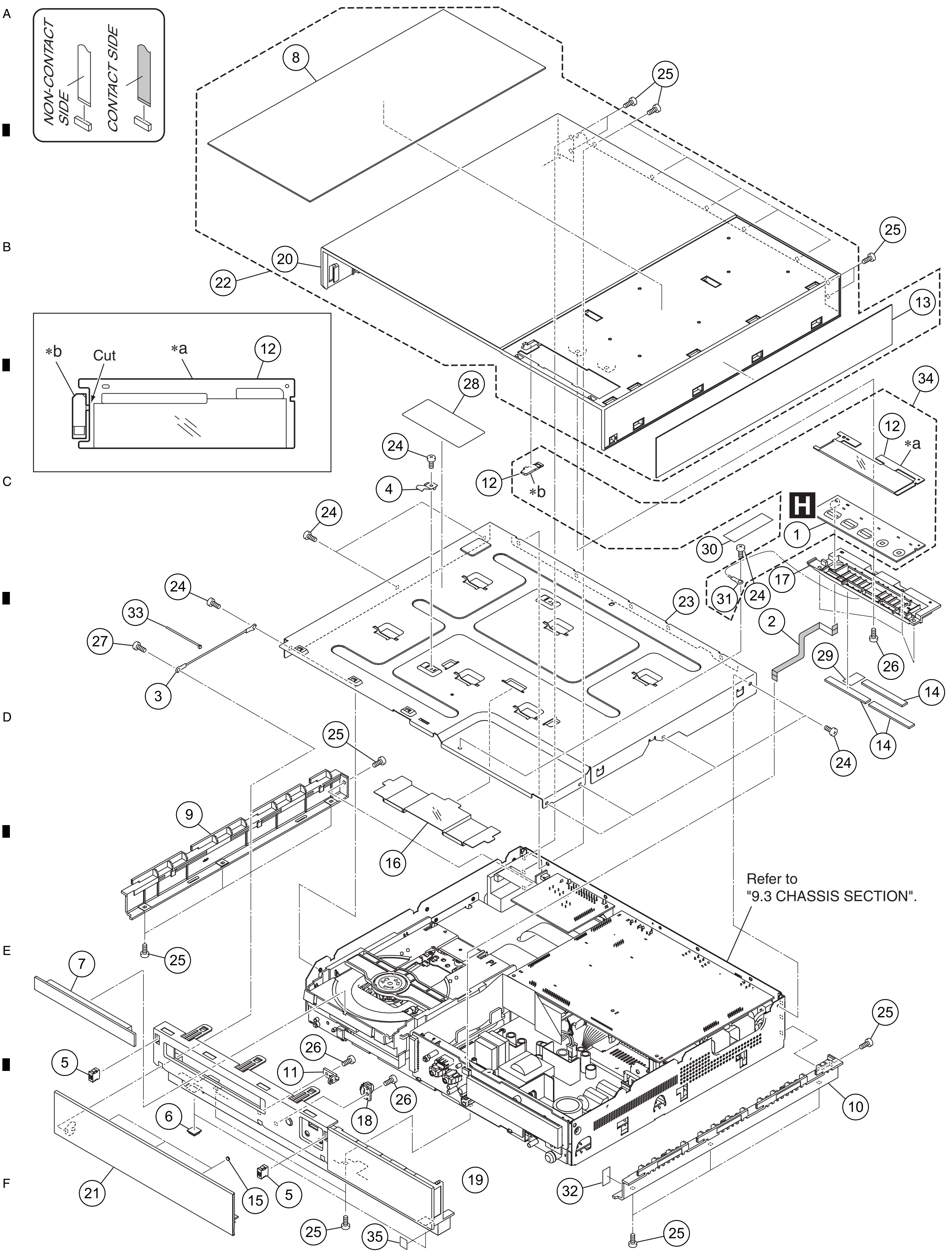
30
31
1
11
3
9
6
12
25
10
5
5
8
17
20
15 2/2
15 1/2
4
14 2/2
13
14 1/2
16

PACKING SECTION PARTS LIST

Mark	No.	Description	Part No.
⚠	1	Power Cord	ADG7021
	2	• • • • •	
	3	FM Antenna	ADH7030
	4	Packing Sheet	XHG3022
NSP	5	Polyethylene Bag	AHG7117
	6	Microphone (for Auto MCACC setup)	APM7008
	7	• • • • •	
NSP	8	Warranty Card	ARY7045
	9	AM Loop Antenna	ATB7013
	10	Battery Cover	VZN1025
	11	Video Cable (yellow plugs)	XDE3046
	12	Cleaning Cloth	XED3008
NSP	13	Dry Cell Battery (AA/R6)	XEX3005
	14	Right Pad	XHA3182
	15	Left Pad	XHA3183
	16	Packing Case AHTS	XHD3829
	17	Operating Instructions (English)	XRB3102
	18	• • • • •	
	19	• • • • •	
	20	Operating Instructions (French)	XRC3389
	21	• • • • •	
	22	• • • • •	
	23	• • • • •	
	24	• • • • •	
	25	Remote Control	XXD3171
	26	Speaker Cable Adaptor (RED)	XKM3012
	27	Speaker Cable Adaptor (WHITE)	XKM3013
	28	Speaker Cable Adaptor (GREY)	XKM3014
	29	Speaker Cable Adaptor (BLUE)	XKM3015
	30	Speaker Cable Adaptor (PURPLE)	XKM3017
	31	Polyethylene Bag	XHG3020

9.2 EXTERIOR SECTION


A
B
C
D
E
F
NON-CONTACT SIDE
CONTACT SIDE
*b
Cut
*a
12
8
25
25
20
22
13
28
34
12
*a
24
4
12
*b
H
1
24
30
31
24
17
24
33
23
27
2
26
3
29
14
14
24
25
9
16
Refer to "9.3 CHASSIS SECTION".
25
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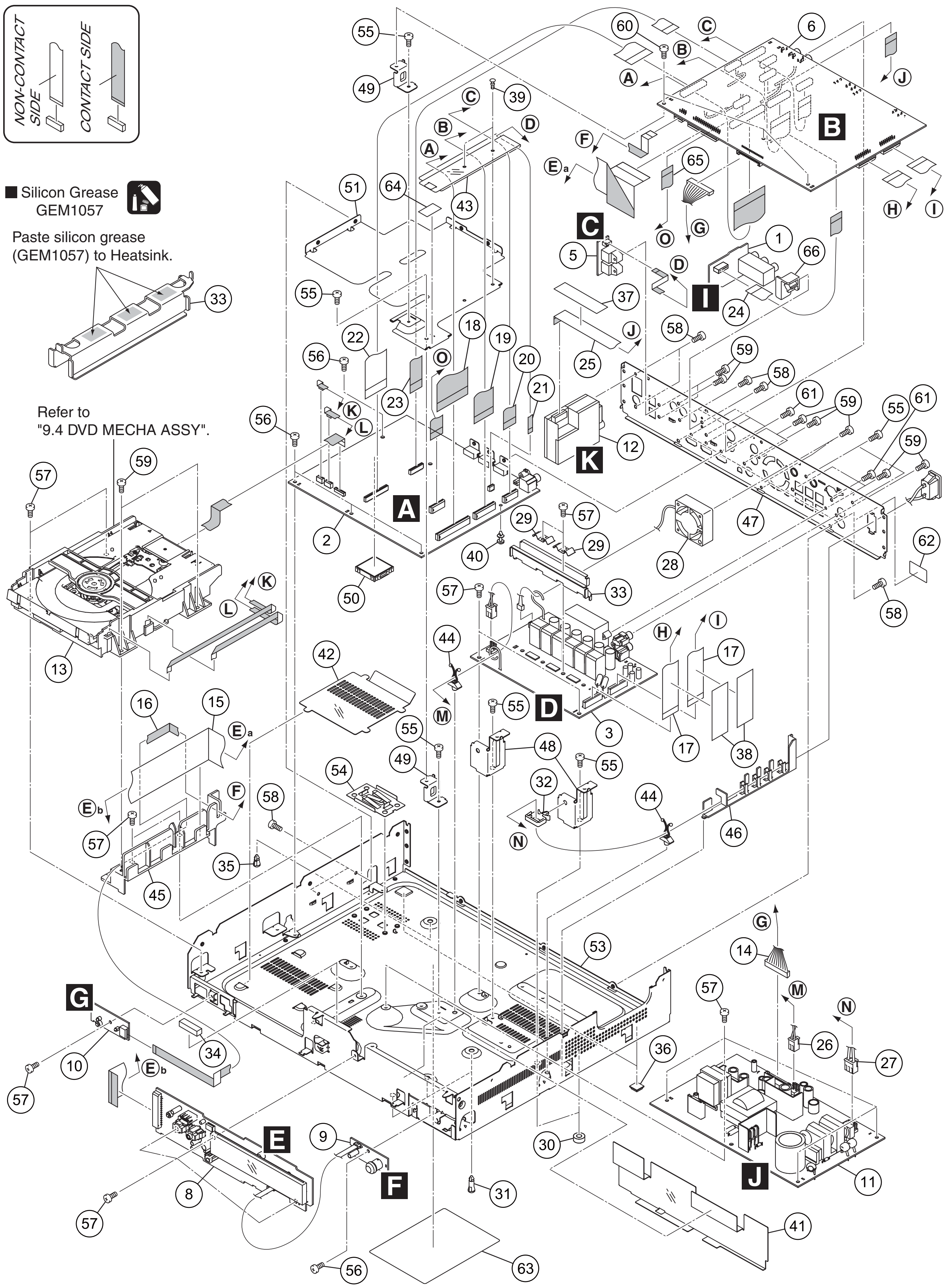
35
25

EXTERIOR SECTION PARTS LIST

Mark	No.	Description	Part No.
NSP	1	AHTS TOUCH SENSOR Assy	XWM3422
	2	7P FFC 1MM/60V	XDD3276
NSP	3	Cord With Plug	ADH7022
	4	Earth Spring W5.1 MTL	ABH7240
	5	Magnet Holder Assy	AEC1077
	6	Rubber Foot	VEB1325
	7	Tray Panel	XAK3611
NSP	8	Top Sheet PC HTS	XAK3618
	9	Side Panel L	XAK3620
	10	Side Panel R	XAK3621
	11	Door Clamper	XAK3624
NSP	12	Lighting Conductor	XAK3625
NSP	13	Side Sheet PC	XAK3619
	14	Touch Sensor Cushion	XEB3116
	15	Door Pad	XEB3118
	16	Top Barrier SMPS	XEC3096
	17	Touch Sensor Bracket	XMR3123
NSP	18	Damper Assy	XXA3046
	19	Front Panel Assy HTS	XXG3401
NSP	20	Top Cover Assy	XXG3382
	21	Door Panel Assy	XXG3383
	22	Top Cover Assy HTS	XZN3212
NSP	23	Top Chassis	XNA3065
	24	Screw	BBZ30P080FNI
	25	Screw	BBZ30P080FTB
	26	Screw	BPZ30P080FTB
	27	Screw	BSZ20P040FTB
	28	Laser Caution PAP	PRW1608
NSP	29	SP Wire 2P Cushion	XEB3100
NSP	30	SP Wire Tape Cushion	XEB3101
NSP	31	Cord With Plug	DE015AE0
	32	Spacer 0.8	XEB3146
NSP	33	Binder	ZCA-BK1
	34	Touch Sensor Assy	XZN3214
NSP	35	Energy Star Label	AAX8022

9.3 CHASSIS SECTION



■ Silicon Grease
GEM1057

Paste silicon grease
(GEM1057) to Heatsink.

Refer to
"9.4 DVD MECHA ASSY".

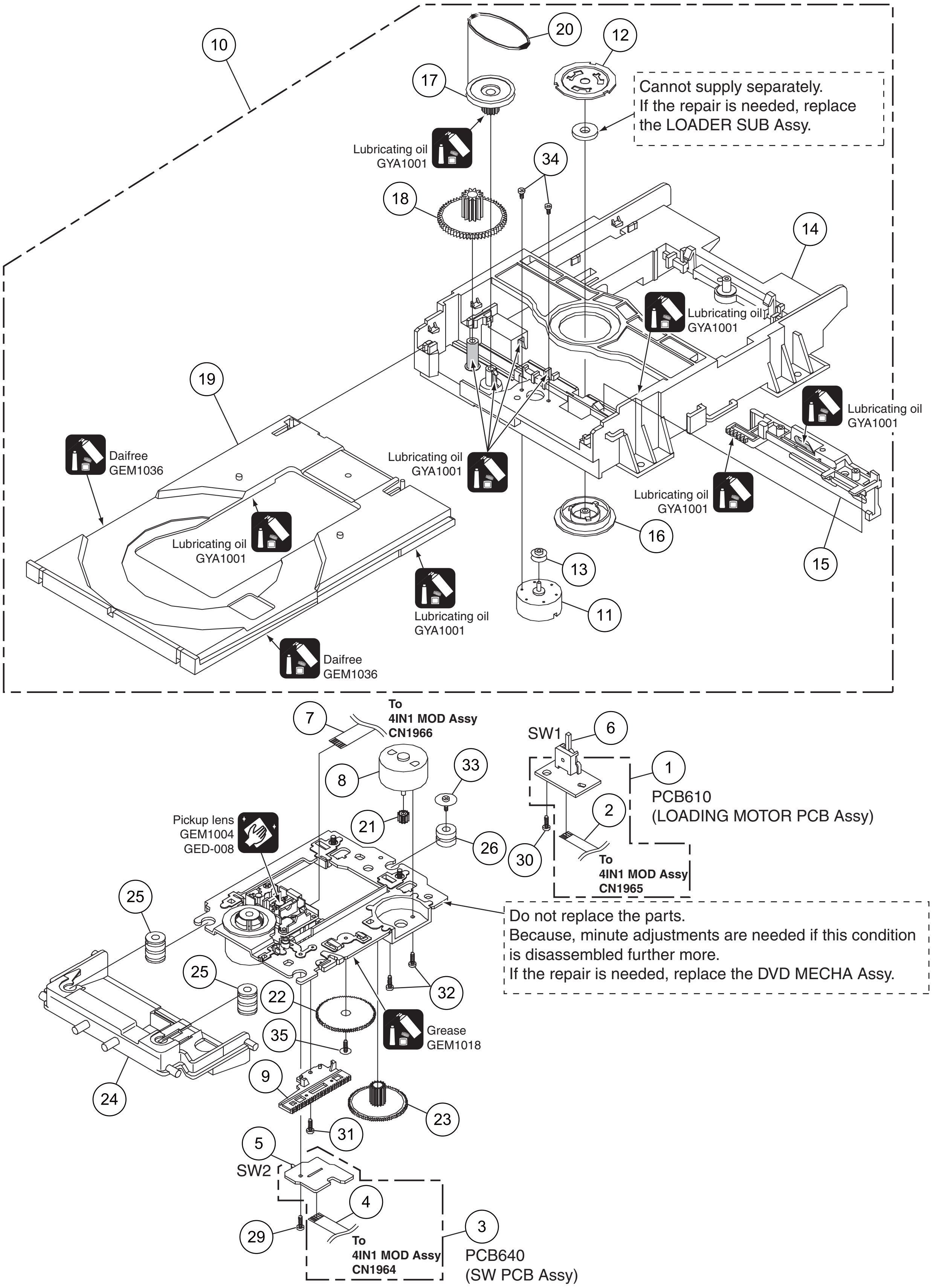
A
B
C
D
E
F
NON-CONTACT SIDE
CONTACT SIDE
55
60
C
6
B
A
J
49
39
C
B
D
A
43
F
Ea
65
51
64
H
I
O
G
C
5
D
1
66
I
24
33
55
37
J
58
25
22
18
19
20
21
56
O
59
58
61
59
55
61
23
K
L
56
12
K
59
57
59
A
57
29
29
2
40
28
47
62
33
50
57
L
K
13
44
42
H
I
17
58
55
D
3
17
38
16
15
Ea
M
55
49
48
55
54
32
44
46
Eb
F
58
57
35
45
N
G
14
53
57
M
N
G
26
27
36
10
34
Eb
57
9
30
E
11
J
F
31
8
57
41
56
63

CHASSIS SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	AHTS COMPONENT Assy	XWZ4346
	2	4IN1 MOD Assy	AWX9179
	3	AHTS-HTP AMP Assy	XWK3368
	4	• • • • •	
	5	AHTS OPT IN Assy	XWZ4361
	6	AHTS KU SYSMAIN Assy	XWZ4363
	7	• • • • •	
	8	AHTS DISPLAY Assy	XWZ4345
	9	AHTS MOTION SENSOR Assy	XWZ4347
	10	AHTS LED Assy	XWZ4348
⚠	11	Power Supply Unit	XWR3019
	12	FM/AM Tuner Unit	AXX7250
	13	DVD Mecha Assy	A2ZX01A650
	14	Connector Assy	PG16KK-F10
	15	31P FFC 1.25MM/60V	XDD3275
	16	7P FFC 1.25MM/60V	XDD3277
	17	17P FFC 1.25MM/60V	XDD3278
	18	35P FFC 1MM/60V	XDD3279
	19	21P FFC 1MM/60V	XDD3280
	20	13P FFC 1MM/60V	XDD3281
	21	5P FFC 1MM/60V	XDD3283
	22	31P FFC 1MM/60V	XDD3284
	23	17P FFC 1MM/60V	XDD3285
	24	7P FFC 1.25MM/60V	XDD3288
	25	11P FFC 1.25MM/60V	XDD3289
	26	2P Wire	XDX3073
⚠	27	AC Inlet IBD	XDX3075
	28	DC Fan Motor	VXM1121
	29	Spring Plate NHTS	ABH7244
NSP	30	Spacer	AEB7092
	31	Locking Card Spacer	AEC7372
	32	Locking Wire Saddle	AEC7589
	33	Heat Sink NHTS	ANH7190
	34	Gasket(6*6*25)	ANK7141
NSP	35	PCB Holder	PNW1706
	36	Rubber Foot	VEB1325
	37	Cushion TUNER	XEB3111
	38	Cushion AMP	XEB3112
	39	Push Rivet	AEC7025
NSP	40	PCB Support PLS	XEC3074
	41	Barrier SMPS	XEC3088
	42	Barrier MECHA	XEC3089
	43	HDMI FFC Holder	XEC3090
	44	Wire Clamp	XEC3093
	45	Mecha Adaptor R	XMR3120
	46	AC Cable Holder	XMR3124
	47	Rear Panel	XNC3619
	48	System Main Bracket	XNG3184
	49	HDMI Sheild Bracket	XNG3185
	50	Heatsink 6 MTL	XNH3050
	51	HDMI Shield	XNK3022
	52	• • • • •	
NSP	53	Base Chassis	XNA3064
NSP	54	Radiation Plate MTL	XNG3191
	55	Screw	BBT30P060FCC
	56	Screw	BBZ30P060FTC
	57	Screw	BBZ30P080FNI
	58	Screw	BBZ30P080FTB
	59	Screw	BPZ30P080FTB
	60	Screw	IBZ30P060FCC
	61	Screw	PMZ30P060FCC
NSP	62	Label	VRW1629
NSP	63	Name Label ADV	XAL3320
NSP	64	SP wire 2P Cushion	XEB3100
	65	14P FFC 1MM/60V	XDD3282
	66	Comp Video Holder	XAK3641

9.4 DVD MECHA ASSY

Note :
Check if the correct grease is applied for each position.


10
20
12
17
Lubricating oil
GYA1001
34
18
14
Lubricating oil
GYA1001
19
Lubricating oil
GYA1001
Daifree
GEM1036
Lubricating oil
GYA1001
Lubricating oil
GYA1001
Lubricating oil
GYA1001
16
13
15
Lubricating oil
GYA1001
11
Daifree
GEM1036
7
To
4IN1 MOD Assy
CN1966
SW1
6
8
33
1
PCB610
(LOADING MOTOR PCB Assy)
Pickup lens
GEM1004
GED-008
21
2
26
30
To
4IN1 MOD Assy
CN1965
25
25
32
22
Grease
GEM1018
35
9
24
23
31
5
SW2
4
3
29
To
4IN1 MOD Assy
CN1964
PCB640
(SW PCB Assy)

Cannot supply separately.
If the repair is needed, replace
the LOADER SUB Assy.

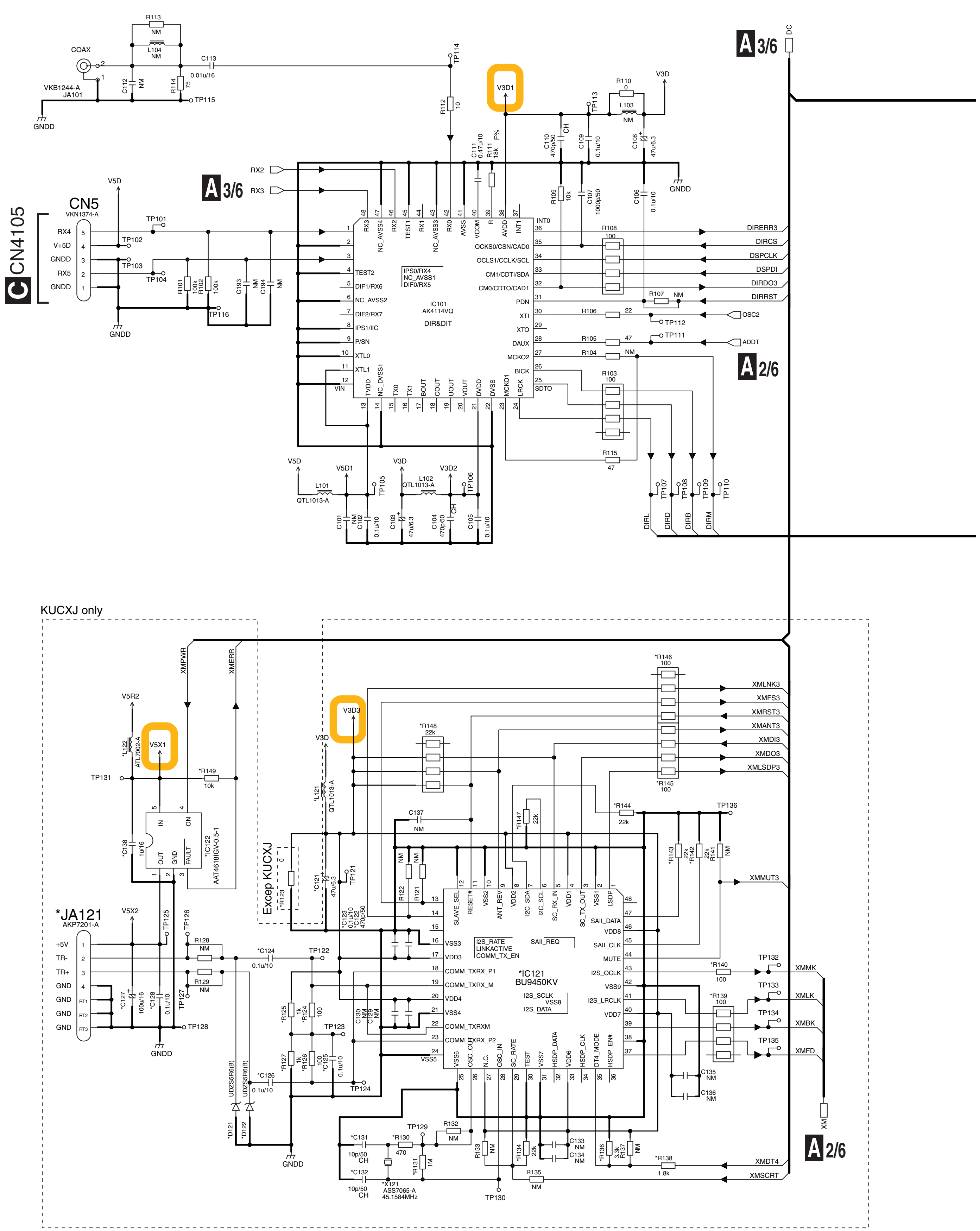
Do not replace the parts.
Because, minute adjustments are needed if this condition is disassembled further more.
If the repair is needed, replace the DVD MECHA Assy.

DVD MECHA ASSY PARTS LIST

Mark	No.	Description	Part No.
	1	LOADING MOTOR PCB Assy	A2ZX01A610
	2	Cord Jumper (5P)	12C1053601
	3	SW PCB Assy	A2ZX01A640
	4	Cord Jumper (6P)	12C1063201
	5	Switch (SW2)	0500101036
	6	Switch (SW1)	0515S32003
	7	Cord Jumper (24P)	122F003101
	8	FEED Motor	1515T98006
	9	Feed Rack Assy	92AAA0017A
	10	LOADER SUB Assy	92AAA0024A
	11	LOADING Motor	1515S98004
	12	Plate, Clamper	92P000023A
	13	Pulley, Motor	92P100097A
	14	Frame, Main	92P100119A
	15	Rack, Loading	92P100121A
	16	Clamper	92P100122A
	17	Gear, Pulley	92P100123A
	18	Gear, Main	92P100124A
	19	Tray	92P100151A
	20	Belt, Loading	92P200015A
	21	Gear, Motor	92P100088A
	22	Gear, Feed	92P100116A
	23	Gear, Middle	92P100117A
	24	Holder, Traverse	92P100125A
	25	Insulator (F)	92P200013A
	26	Insulator (R)	92P200016A
	27	• • • • •	
	28	• • • • •	
	29	Screw, Bind (2 x 8)	811022080U
	30	Screw, Tap tite (P)(2.6 x 8)	811022680U
	31	Screw, T-tite (B)(M1.7 x 5.0 P3)	813381750U
	32	Screw, Pan (M1.7 x 2.3 P3)	814011723U
	33	Screw, Tap tite (P)(2 x 8)	816112080U
	34	Screw, Pan (M1.7 x 3 P3)	814011730U
	35	Screw, Gear Feed	92P700007A

10. SCHEMATIC DIAGRAM

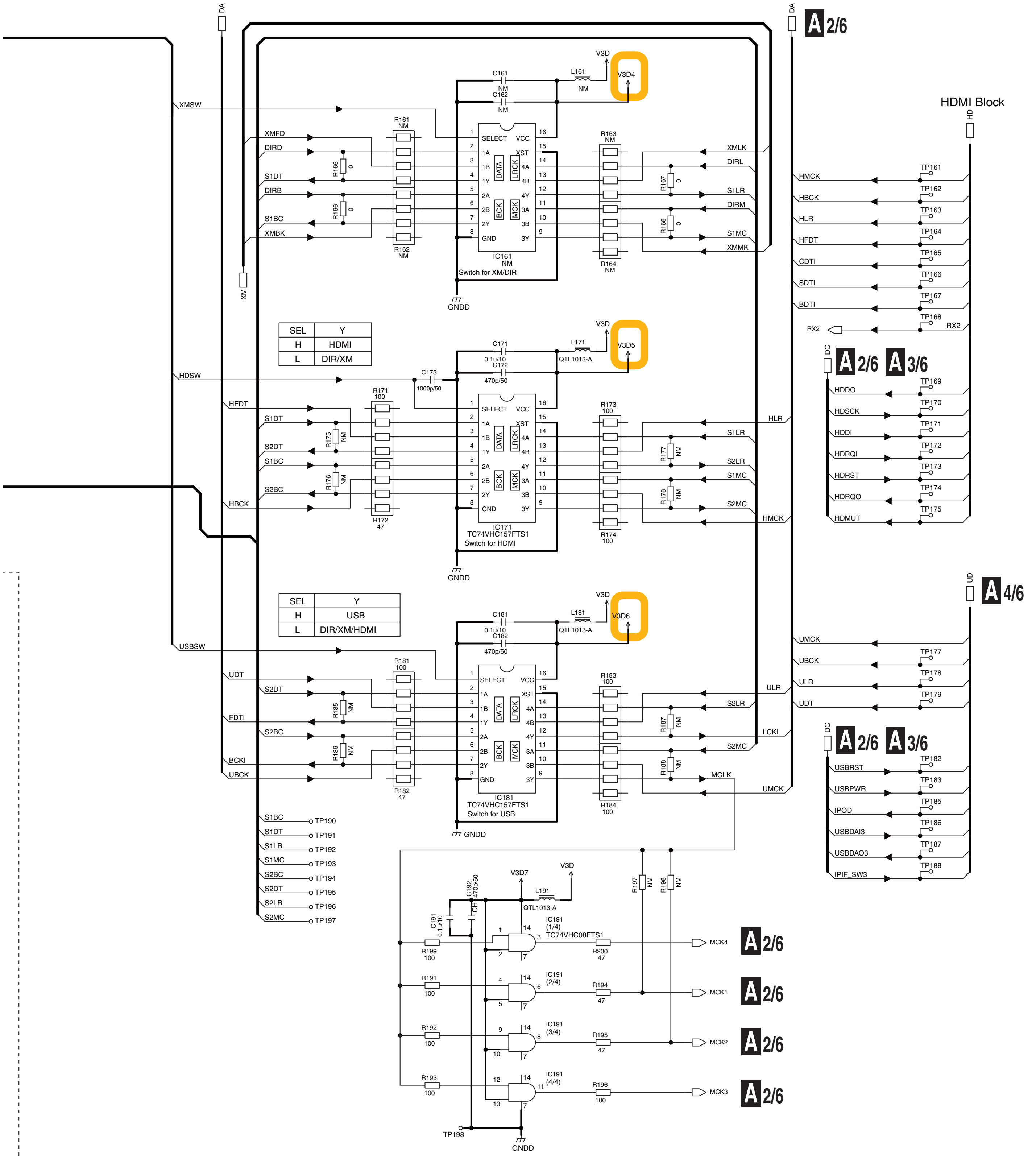
10.1 4IN1 MOD ASSY (1/6)



COAX
VKB1244-A
JA101
GNDD
R113
NM
L104
NM
C113
0.01u/16
C112
R114
75
TP115
TP114
R112
10
V3D1
R110
0
V3D
L103
NM
TP113
C110
470p/50
CH
C109
0.1u/10
C108
47u/6.3
C111
0.47u/10
R111
18k
F%
R109
10k
C107
1000p/50
C106
0.1u/10
GNDD
A 3/6
DC
RX2
RX3
V5D
CN5
VKN1374-A
C CN4105
RX4
V+5D
GNDD
RX5
GNDD
TP101
TP102
TP103
TP104
R101
100k
R102
100k
C193
NM
C194
NM
TP116
GNDD
IC101
AK4114VQ
DIR&DIT
IPS0/RX4
NC_AVSS1
DIF0/RX5
TEST2
DIF1/RX6
NC_AVSS2
DIF2/RX7
IPS1/IIC
P/SN
XTL0
XTL1
VIN
TVDD
NC_DVSS1
TX0
TX1
BOUT
COUT
UOUT
VOUT
DVDD
DVSS
MCKO1
LRCK
NC_AVSS4
RX2
TEST1
RX1
NC_AVSS3
RX0
AVSS
VCOM
R
AVDD
INT1
INT0
OCKS0/CSN/CAD0
OCLS1/CCLK/SCL
CM1/CDTI/SDA
CM0/CDTO/CAD1
PDN
XTI
XTO
DAUX
MCKO2
BICK
SDTO
R108
100
R107
NM
R106
22
R105
47
R104
NM
R103
100
R115
47
TP112
TP111
DIRERR3
DIRCS
DSPCLK
DSPDI
DIRDO3
DIRRST
OSC2
ADDT
A 2/6
V5D
V5D1
L101
QTL1013-A
TP105
V3D
L102
QTL1013-A
V3D2
TP106
C101
NM
C102
0.1u/10
C103
47u/6.3
C104
470p/50
CH
C105
0.1u/10
TP107
TP108
TP109
TP110
DIRL
DIRD
DIRB
DIRM
KUCXJ only
XMPWR
XMERR
V5R2
*L122
ATL7002-A
V5X1
TP131
*R149
10k
IN
ON
OUT
GND
FAULT
*IC122
AAT4618IGV-0.5-1
*C138
1u/16
*JA121
AKP7201-A
+5V
TR-
TR+
GND
GND
GND
GND
V5X2
TP125
TP126
R128
NM
R129
NM
*C124
0.1u/10
TP122
*C127
100u/16
*C128
0.1u/10
TP127
TP128
GNDD
UDZS5R6(B)
UDZS5R6(B)
*D121
*D122
*C126
0.1u/10
GNDD
V3D3
V3D
*L121
QTL1013-A
Excep KUCXJ
*R123
0
*C121
47u/6.3
TP121
*C123
0.1u/10
*C122
470p/50
*R125
1k
*R124
100
*R127
1k
*R126
100
*C125
0.1u/10
TP123
C130
NM
C129
NM
TP124
*R148
22k
C137
NM
R122
NM
R121
NM
*IC121
BU9450KV
SLAVE_SEL
RESET#
VSS2
ANT_REV
VDD2
I2C_SDA
I2C_SCL
SC_RX_IN
VDD1
SC_TX_OUT
VSS1
LSDP
VSS3
VDD3
COMM_TXRX_P1
COMM_TXRX_M
VDD4
VSS4
COMM_TXRXM
COMM_TXRX_P2
VSS5
I2S_RATE
LINKACTIVE
COMM_TX_EN
SAII_REQ
I2S_SCLK
VSS8
I2S_DATA
SAII_DATA
VDD8
SAII_CLK
MUTE
I2S_OCLK
VSS9
I2S_LRCLK
VDD7
VSS6
OSC_OUT
N.C.
OSC_IN
SC_RATE
TEST
VSS7
HSDP_DATA
VDD6
HSDP_CLK
DT4_MODE
HSDP_EN#
*R146
100
*R145
100
XMLNK3
XMFS3
XMRST3
XMANT3
XMDI3
XMDO3
XMLSDP3
*R147
22k
*R144
22k
TP136
*R143
22k
*R142
22k
R141
NM
XMMUT3
*R140
100
TP132
XMMK
*R139
100
TP133
XMLK
TP134
XMBK
TP135
XMFD
C135
NM
C136
NM
XM
A 2/6
*C131
10p/50
CH
*R130
470
TP129
R132
NM
*C132
10p/50
CH
*X121
ASS7065-A
45.1584MHz
*R131
1M
R133
NM
*R134
22k
C133
NM
C134
NM
R135
NM
TP130
*R136
33k
R137
NM
*R138
1.8k
XMDT4
XMSCRT

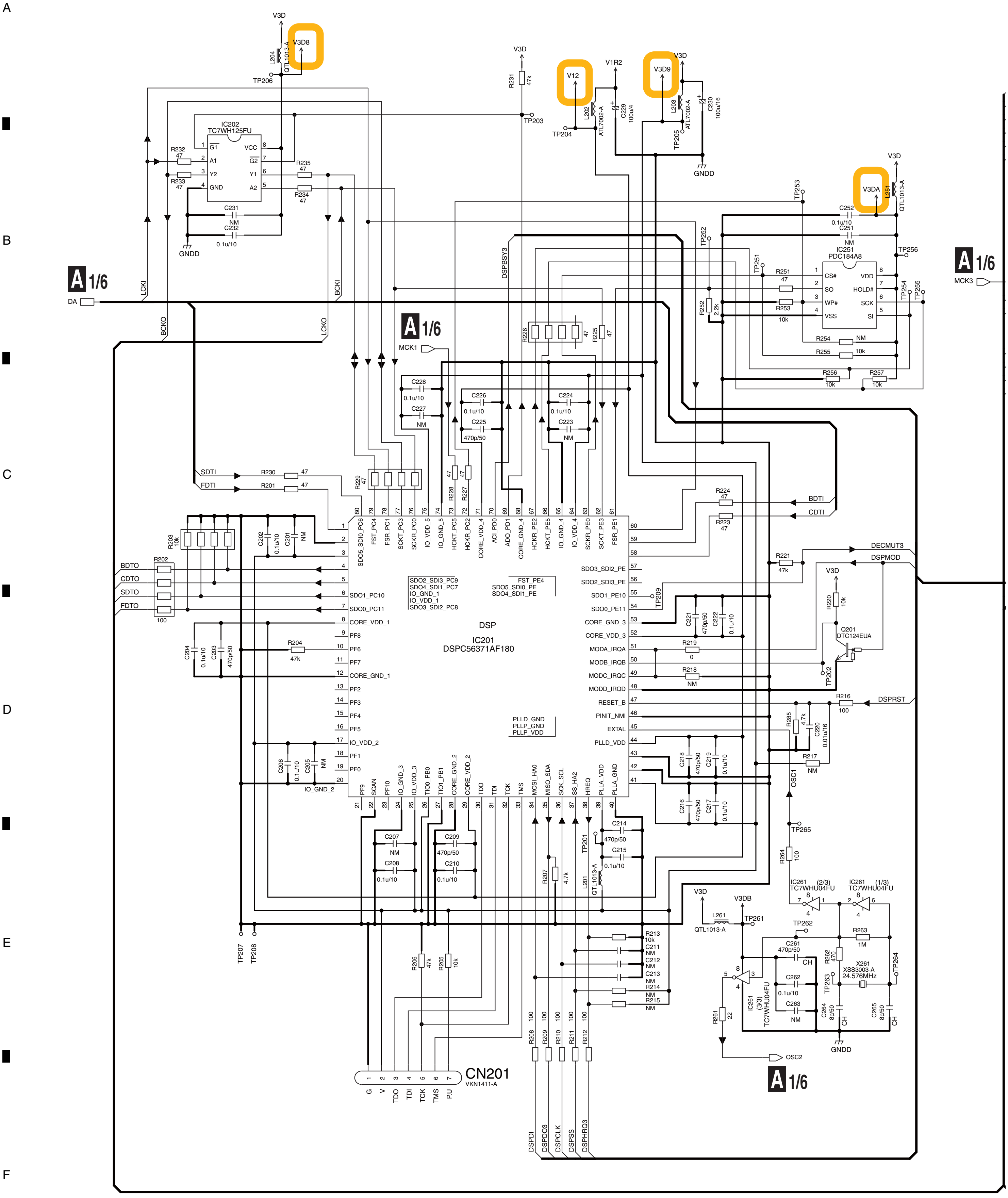
A 1/6

A 1/6 4IN1 MOD ASSY (AWX9179)


DA
A 2/6
HDMI Block
HD
XMSW
XMFD
DIRD
S1DT
DIRB
S1BC
XMBK
XM
V3D
V3D4
C161 NM
C162 NM
L161 NM
R161 NM
R162 NM
R163 NM
R164 NM
R165 0
R166 0
R167 0
R168 0
IC161 NM Switch for XM/DIR
SELECT VCC
1A XST
1B 4A
1Y 4B
2A 4Y
2B 3A
2Y 3B
GND 3Y
DATA LRCK BCK MCK
XMLK
DIRL
S1LR
DIRM
S1MC
XMMK
GNDD
HMCK
HBCK
HLR
HFDT
CDTI
SDTI
BDTI
RX2
TP161
TP162
TP163
TP164
TP165
TP166
TP167
TP168
DC
A 2/6 A 3/6
HDDO
HDSCK
HDDI
HDRQI
HDRST
HDRQO
HDMUT
TP169
TP170
TP171
TP172
TP173
TP174
TP175
SEL Y
H HDMI
L DIR/XM
HDSW
HFDT
S1DT
S2DT
S1BC
S2BC
HBCK
V3D5
C171 0.1u/10
C172 470p/50
C173 1000p/50
L171 QTL1013-A
R171 100
R172 47
R173 100
R174 100
R175 NM
R176 NM
R177 NM
R178 NM
IC171 TC74VHC157FTS1 Switch for HDMI
HLR
S1LR
S2LR
S1MC
S2MC
HMCK
UD
A 4/6
UMCK
UBCK
ULR
UDT
TP177
TP178
TP179
SEL Y
H USB
L DIR/XM/HDMI
USBSW
UDT
S2DT
FDTI
S2BC
BCKI
UBCK
V3D6
C181 0.1u/10
C182 470p/50
L181 QTL1013-A
R181 100
R182 47
R183 100
R184 100
R185 NM
R186 NM
R187 NM
R188 NM
IC181 TC74VHC157FTS1 Switch for USB
ULR
S2LR
LCKI
S2MC
MCLK
UMCK
A 2/6 A 3/6
USBRST
USBPWR
IPOD
USBDAI3
USBDAO3
IPIF_SW3
TP182
TP183
TP185
TP186
TP187
TP188
S1BC TP190
S1DT TP191
S1LR TP192
S1MC TP193
S2BC TP194
S2DT TP195
S2LR TP196
S2MC TP197
V3D7
V3D
C191 0.1u/10
C192 CH 470p50
L191 QTL1013-A
IC191 (1/4) TC74VHC08FTS1
IC191 (2/4)
IC191 (3/4)
IC191 (4/4)
R191 100
R192 100
R193 100
R199 100
R194 47
R195 47
R196 100
R200 47
R197 NM
R198 NM
MCK4
MCK1
MCK2
MCK3
A 2/6
A 2/6
A 2/6
A 2/6
TP198
GNDD

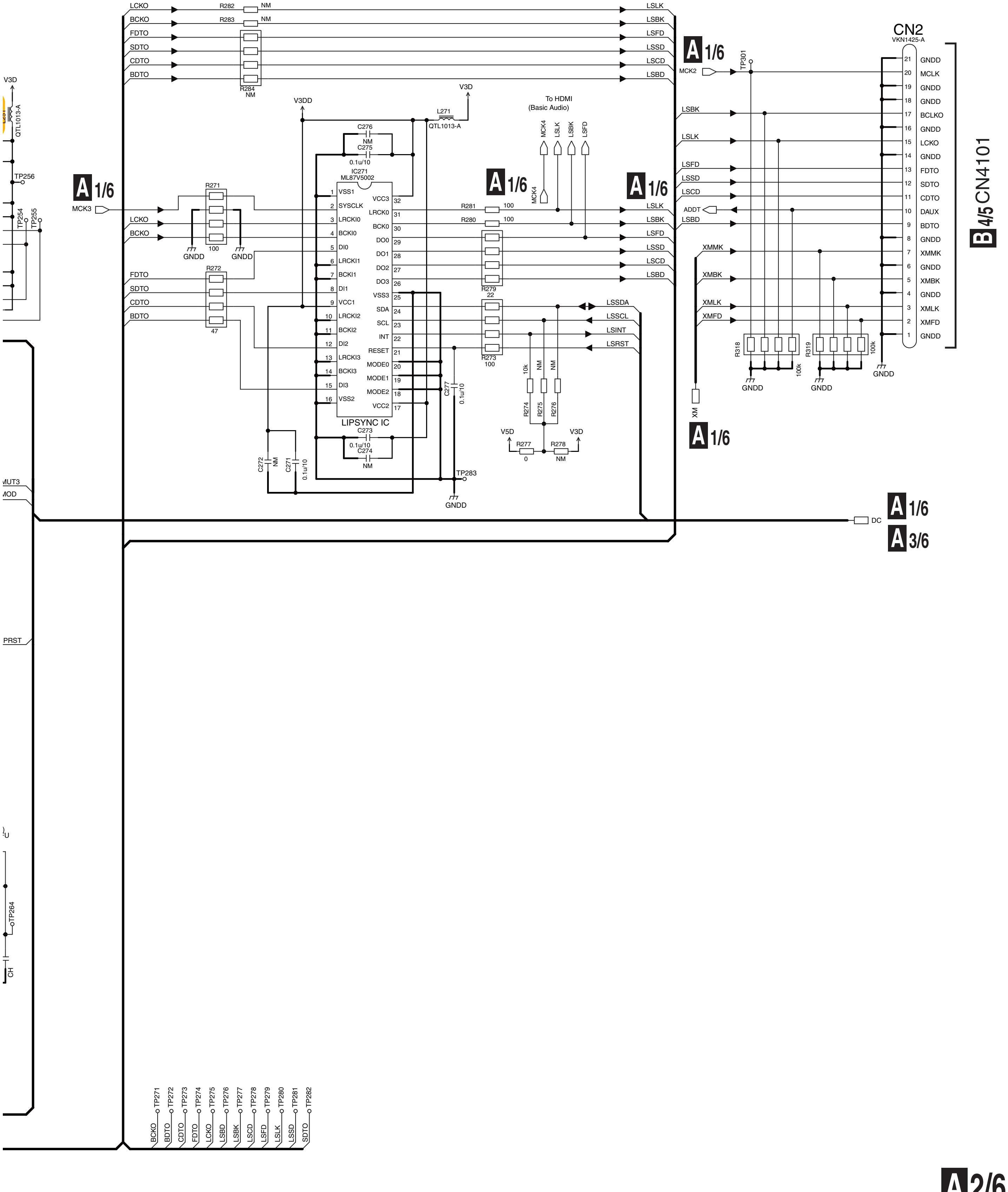
- When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- ▭ : The power supply is shown with the marked box.

10.2 4IN1 MOD ASSY (2/6)


A
B
C
D
E
F
V3D
V3D8
L204
QTL1013-A
TP206
IC202
TC7WH125FU
G1
A1
Y2
GND
VCC
G2
Y1
A2
R232 47
R233 47
R235 47
R234 47
C231 NM
C232 0.1u/10
GNDD
A 1/6
DA
LCKI
BCKO
BCKI
LCKO
R231 47k
TP203
V12
TP204
L202
ATL7002-A
V1R2
C229 100u/4
V3D9
L203
ATL7002-A
TP205
C230 100u/16
GNDD
V3DA
L251
QTL1013-A
TP253
C252 0.1u/10
C251 NM
IC251
PDC184A8
CS#
SO
WP#
VSS
VDD
HOLD#
SCK
SI
TP252
TP251
TP256
R251 47
R253 10k
R252 2.2k
TP254
TP255
R254 NM
R255 10k
R256 10k
R257 10k
A 1/6
MCK3
DSPBSY3
R226
R225 47
A 1/6
MCK1
C228 0.1u/10
C227 NM
C226 0.1u/10
C225 470p/50
C224 0.1u/10
C223 NM
SDTI
FDTI
R230 47
R201 47
R229 47
R228 47
R227 47
R224 47
R223 47
BDTI
CDTI
R203 10k
C202 0.1u/10
C201 NM
BDTO
CDTO
SDTO
FDTO
R202 100
C204 0.1u/10
C203 470p/50
R204 47k
SDO5_SDI0_PC6
FST_PC4
FSR_PC1
SCKT_PC3
SCKR_PC0
IO_VDD_5
IO_GND_5
HCKT_PC5
HCKR_PC2
CORE_VDD_4
ACI_PD0
ADO_PD1
CORE_GND_4
HCKR_PE2
HCKT_PE5
IO_GND_4
IO_VDD_4
SCKR_PE0
SCKT_PE3
FSR_PE1
SDO1_PC10
SDO0_PC11
CORE_VDD_1
PF8
PF6
PF7
CORE_GND_1
PF2
PF3
PF4
PF5
IO_VDD_2
PF1
PF0
IO_GND_2
SDO2_SDI3_PC9
SDO4_SDI1_PC7
IO_GND_1
IO_VDD_1
SDO3_SDI2_PC8
FST_PE4
SDO5_SDI0_PE
SDO4_SDI1_PE
DSP
IC201
DSPC56371AF180
PLLD_GND
PLLP_GND
PLLP_VDD
SDO3_SDI2_PE
SDO2_SDI3_PE
SDO1_PE10
SDO0_PE11
CORE_GND_3
CORE_VDD_3
MODA_IRQA
MODB_IRQB
MODC_IRQC
MODD_IRQD
RESET_B
PINIT_NMI
EXTAL
PLLD_VDD
PF9
SCAN
PF10
IO_GND_3
IO_VDD_3
TIO0_PB0
TIO1_PB1
CORE_GND_2
CORE_VDD_2
TDO
TDI
TCK
TMS
MOSI_HA0
MISO_SDA
SCK_SCL
SS_HA2
HREQ
PLLA_VDD
PLLA_GND
C206 0.1u/10
C205 NM
TP209
C221 470p/50
C222 0.1u/10
R219 0
R218 NM
DECMUT3
DSPMOD
R221 47k
V3D
R220 10k
Q201
DTC124EUA
TP202
DSPRST
R216 100
R285 4.7k
C220 0.01u/16
R217 NM
OSC1
C218 470p/50
C219 0.1u/10
C216 470p/50
C217 0.1u/10
TP265
R264 100
C214 470p/50
C215 0.1u/10
TP201
L201
QTL1013-A
R207 4.7k
C207 NM
C208 0.1u/10
C209 470p/50
C210 0.1u/10
TP207
TP208
R206 47k
R205 10k
R213 10k
C211 NM
C212 NM
C213 NM
R214 NM
R215 NM
R208 100
R209 100
R210 100
R211 100
R212 100
CN201
VKN1411-A
G
V
TDO
TDI
TCK
TMS
P.U
DSPDI
DSPDO3
DSPCLK
DSPSS
DSPHRQ3
V3D
V3DB
L261
QTL1013-A
TP261
TP262
IC261 (2/3)
TC7WHU04FU
IC261 (1/3)
TC7WHU04FU
IC261 (3/3)
TC7WHU04FU
C261 470p/50
CH
R263 1M
R262 470
X261
XSS3003-A
24.576MHz
TP263
TP264
C262 0.1u/10
C263 NM
C264 8p/50 CH
C265 8p/50 CH
R261 22
GNDD
OSC2
A 1/6

A 2/6

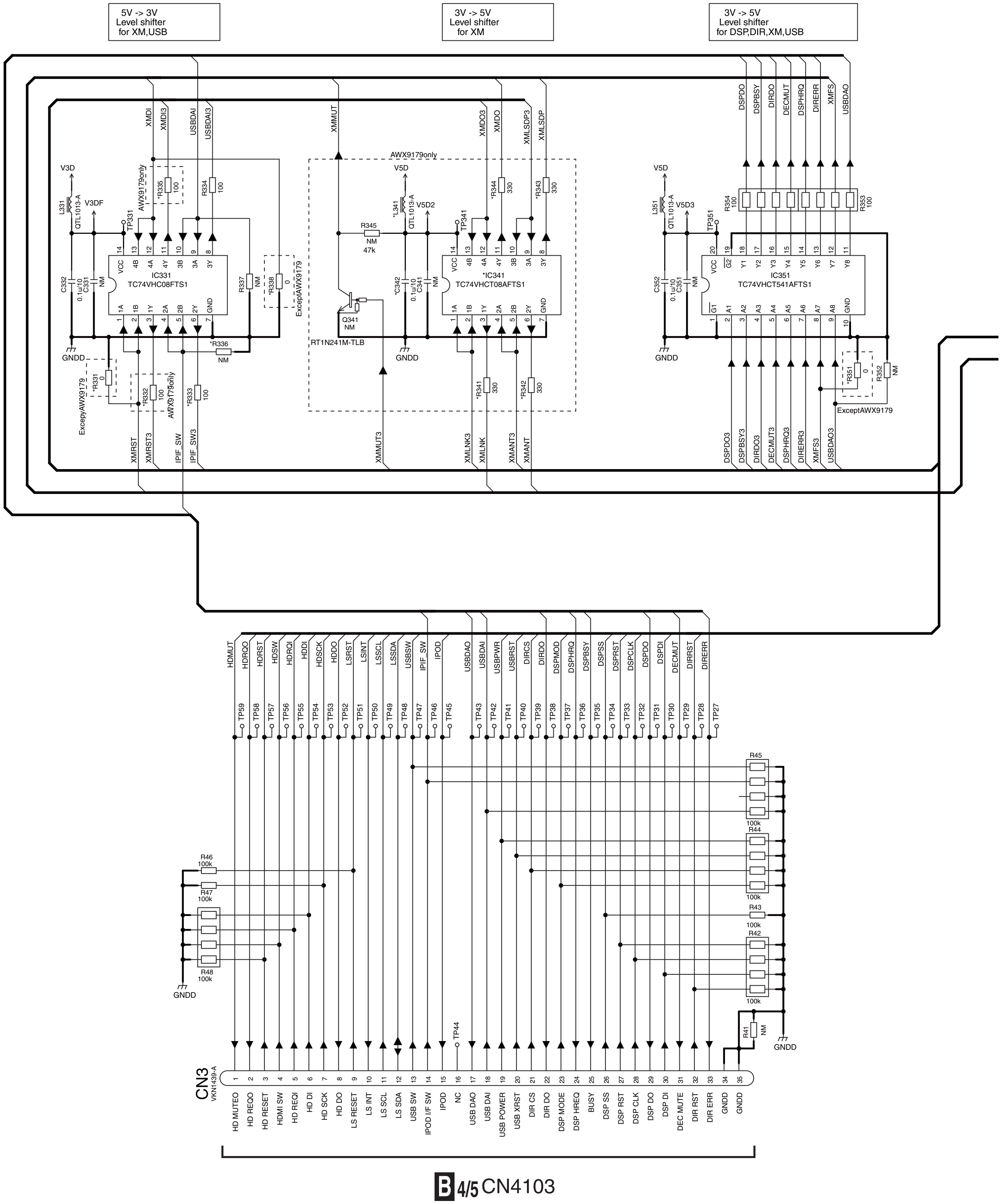
A 2/6 4IN1 MOD ASSY (AWX9179)



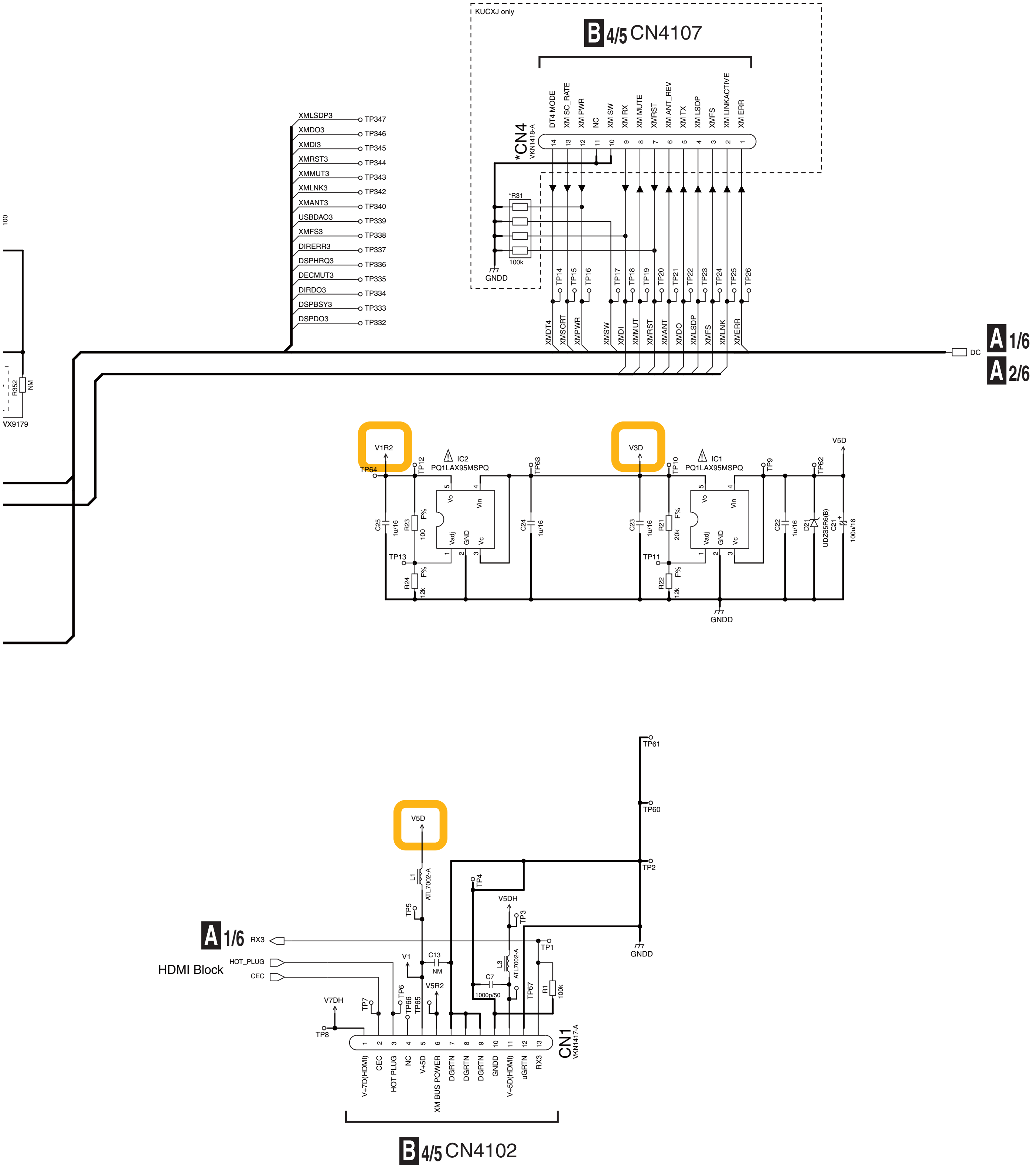
LCKO
BCKO
FDTO
SDTO
CDTO
BDTO
R282 NM
R283 NM
R284 NM
LSLK
LSBK
LSFD
LSSD
LSCD
LSBD
V3D
V3DD
L271 QTL1013-A
C276 NM
C275 0.1u/10
IC271 ML87V5002
LIPSYNC IC
1 VSS1
2 SYSCLK
3 LRCKI0
4 BCKI0
5 DI0
6 LRCKI1
7 BCKI1
8 DI1
9 VCC1
10 LRCKI2
11 BCKI2
12 DI2
13 LRCKI3
14 BCKI3
15 DI3
16 VSS2
32 VCC3
31 LRCK0
30 BCK0
29 DO0
28 DO1
27 DO2
26 DO3
25 VSS3
24 SDA
23 SCL
22 INT
21 RESET
20 MODE0
19 MODE1
18 MODE2
17 VCC2
C273 0.1u/10
C274 NM
C272 NM
C271 0.1u/10
C277 0.1u/10
TP283
GNDD
A 1/6
MCK3
R271 100
R272 47
To HDMI (Basic Audio)
MCK4
R281 100
R280 100
R279 22
R273 100
LSSDA
LSSCL
LSINT
LSRST
R274 10k
R275 NM
R276 NM
V5D
R277 0
R278 NM
MCK2
TP301
XMMK
XMBK
XMLK
XMFD
ADDT
XM
R318 100k
R319 100k
CN2 VKN1425-A
21 GNDD
20 MCLK
19 GNDD
18 GNDD
17 BCLKO
16 GNDD
15 LCKO
14 GNDD
13 FDTO
12 SDTO
11 CDTO
10 DAUX
9 BDTO
8 GNDD
7 XMMK
6 GNDD
5 XMBK
4 GNDD
3 XMLK
2 XMFD
1 GNDD
B 4/5 CN4101
DC
A 1/6
A 3/6
V3D
QTL1013-A
TP256
TP254
TP255
MUT3
MOD
PRST
TP264
CH
TP271 BCKO
TP272 BDTO
TP273 CDTO
TP274 FDTO
TP275 LCKO
TP276 LSBD
TP277 LSBK
TP278 LSCD
TP279 LSFD
TP280 LSLK
TP281 LSSD
TP282 SDTO

A 2/6

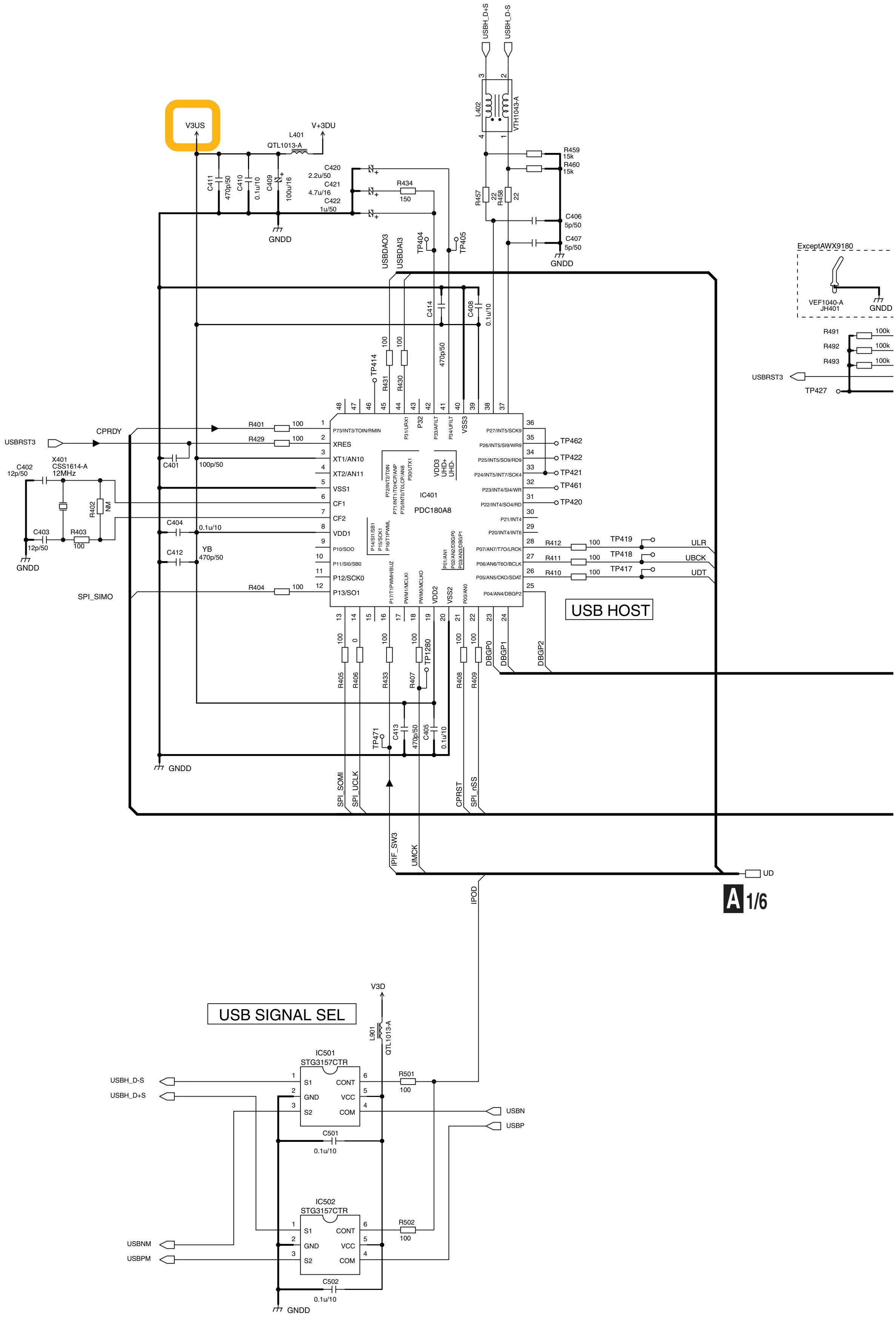
10.3 4IN1 MOD ASSY (3/6)


5V -> 3V Level shifter for XM,USB
3V -> 5V Level shifter for XM
3V -> 5V Level shifter for DSP,DIR,XM,USB
IC331
TC74VHC08FTS1
*IC341
TC74VHCT08AFTS1
IC351
TC74VHCT541AFTS1
AWX9179only
ExceptAWX9179
ExcepyAWX9179
Q341
NM
RT1N241M-TLB
V3D
V3DF
V5D
V5D2
V5D3
L331
L341
L351
QTL1013-A
TP331
TP341
TP351
C332
C331
C342
C341
C352
C351
0.1u/10
GNDD
R334 100
R335 100
R337 NM
R338 0
R336 NM
R331 0
R332 100
R333 100
R345 NM 47k
R344 330
R343 330
R341 330
R342 330
R354 100
R353 100
R351 0
R352 NM
XMDI
XMDI3
USBDAI
USBDAI3
XMMUT
XMDO3
XMDO
XMLSDP3
XMLSDP
DSPDO
DSPBSY
DIRDO
DECMUT
DSPHRQ
DIRERR
XMFS
USBDAO
XMRST
XMRST3
IPIF_SW
IPIF_SW3
XMMUT3
XMLNK3
XMLNK
XMANT3
XMANT
DSPDO3
DSPBSY3
DIRDO3
DECMUT3
DSPHRQ3
DIRERR3
XMFS3
USBDAO3
HDMUT
HDRQO
HDRST
HDSW
HDRQI
HDDI
HDSCK
HDDO
LSRST
LSINT
LSSCL
LSSDA
USBSW
IPIF_SW
IPOD
USBDAO
USBDAI
USBPWR
USBRST
DIRCS
DIRDO
DSPMOD
DSPHRQ
DSPBSY
DSPSS
DSPRST
DSPCLK
DSPDO
DSPDI
DECMUT
DIRRST
DIRERR
TP59 TP58 TP57 TP56 TP55 TP54 TP53 TP52 TP51 TP50 TP49 TP48 TP47 TP46 TP45 TP43 TP42 TP41 TP40 TP39 TP38 TP37 TP36 TP35 TP34 TP33 TP32 TP31 TP30 TP29 TP28 TP27
TP44
R45 100k
R44 100k
R43 100k
R42 100k
R46 100k
R47 100k
R48 100k
R41 NM
CN3
VKN1439-A
1 HD MUTEO
2 HD REQO
3 HD RESET
4 HDMI SW
5 HD REQI
6 HD DI
7 HD SCK
8 HD DO
9 LS RESET
10 LS INT
11 LS SCL
12 LS SDA
13 USB SW
14 IPOD I/F SW
15 IPOD
16 NC
17 USB DAO
18 USB DAI
19 USB POWER
20 USB XRST
21 DIR CS
22 DIR DO
23 DSP MODE
24 DSP HREQ
25 BUSY
26 DSP SS
27 DSP RST
28 DSP CLK
29 DSP DO
30 DSP DI
31 DEC MUTE
32 DIR RST
33 DIR ERR
34 GNDD
35 GNDD
B 4/5 CN4103

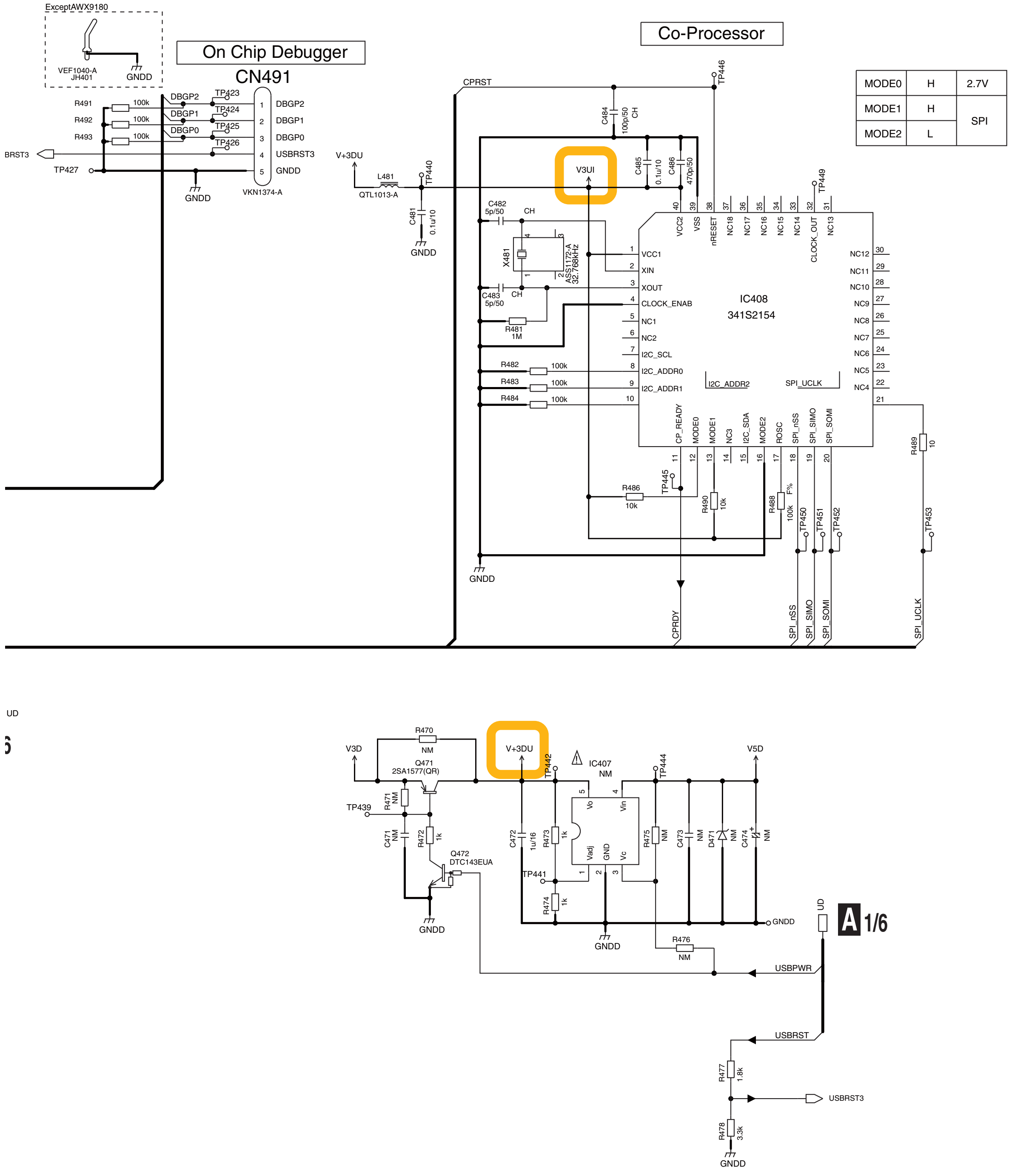
A 3/6 4IN1 MOD ASSY (AWX9179)


KUCXJ only
B 4/5 CN4107
*CN4
VKN1418-A
DT4 MODE
XM SC_RATE
XM PWR
NC
XM SW
XM RX
XM MUTE
XMRST
XM ANT_REV
XM TX
XM LSDP
XMFS
XM LINKACTIVE
XM ERR
14 13 12 11 10 9 8 7 6 5 4 3 2 1
*R31
100k
GNDD
TP14 TP15 TP16 TP17 TP18 TP19 TP20 TP21 TP22 TP23 TP24 TP25 TP26
XMDT4
XMSCRT
XMPWR
XMSW
XMDI
XMMUT
XMRST
XMANT
XMDO
XMLSDP
XMFS
XMLNK
XMERR
XMLSDP3 TP347
XMDO3 TP346
XMDI3 TP345
XMRST3 TP344
XMMUT3 TP343
XMLNK3 TP342
XMANT3 TP340
USBDAO3 TP339
XMFS3 TP338
DIRERR3 TP337
DSPHRQ3 TP336
DECMUT3 TP335
DIRDO3 TP334
DSPBSY3 TP333
DSPDO3 TP332
100
R352
NM
VX9179
DC
A 1/6
A 2/6
V1R2
TP64
TP12
IC2
PQ1LAX95MSPQ
TP63
Vo
Vin
Vadj
GND
Vc
C25
1u/16
R23
100
F%
TP13
R24
12k
F%
C24
1u/16
V3D
TP10
IC1
PQ1LAX95MSPQ
TP9
TP62
V5D
C23
1u/16
R21
20k
F%
TP11
R22
12k
F%
C22
1u/16
D21
UDZS5R6(B)
C21
100u/16
GNDD
TP61
TP60
TP2
V5D
L1
ATL7002-A
TP4
TP5
V5DH
TP3
A 1/6
RX3
TP1
GNDD
HDMI Block
HOT_PLUG
CEC
V1
C13
NM
L3
ATL7002-A
C7
1000p/50
V5R2
R1
100k
V7DH
TP7
TP6
TP66
TP65
TP67
TP8
CN1
VKN1417-A
1 2 3 4 5 6 7 8 9 10 11 12 13
V+7D(HDMI)
CEC
HOT PLUG
NC
V+5D
XM BUS POWER
DGRTN
DGRTN
DGRTN
GNDD
V+5D(HDMI)
uGRTN
RX3
B 4/5 CN4102

10.4 4IN1 MOD ASSY (4/6)

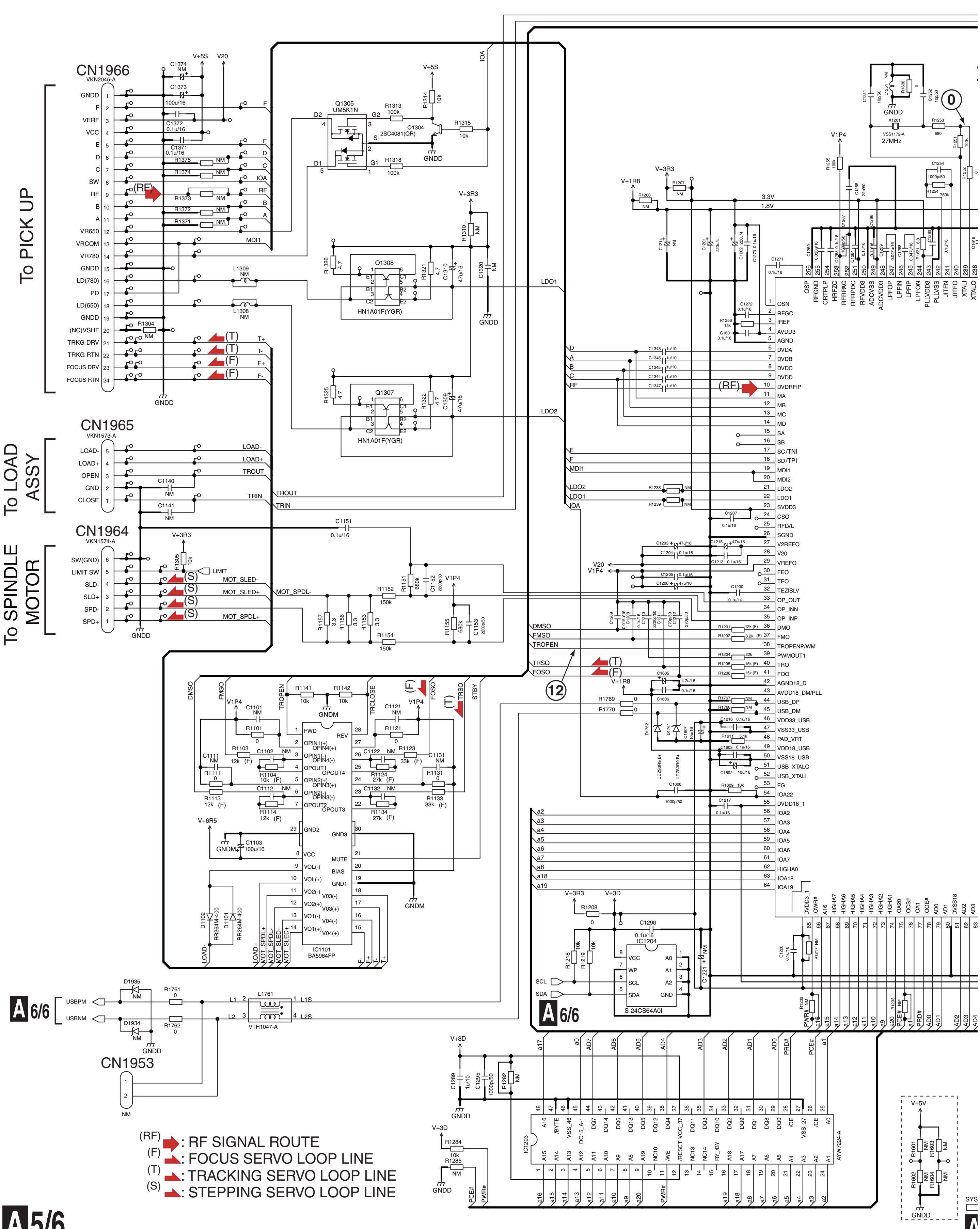

USBH_D+S
USBH_D-S
L402
VTH1043-A
V3US
L401
QTL1013-A
V+3DU
C411 470p/50
C410 0.1u/10
C409 100u/16
C420 2.2u/50
C421 4.7u/16
C422 1u/50
R434 150
GNDD
R459 15k
R460 15k
R457 22
R458 22
C406 5p/50
C407 5p/50
USBDAO3
USBDAI3
TP404
TP405
C414 470p/50
C408 0.1u/10
ExceptAWX9180
VEF1040-A JH401
R491 100k
R492 100k
R493 100k
USBRST3
TP427
TP414
R431 100
R430 100
CPRDY
R401 100
R429 100
USBRST3
X401 CSS1614-A 12MHz
C402 12p/50
C401 100p/50
R402 NM
C403 12p/50
R403 100
C404 0.1u/10
C412 YB 470p/50
R404 100
SPI_SIMO
IC401
PDC180A8
P73/INT3/TOIN/RMIN
XRES
XT1/AN10
XT2/AN11
VSS1
CF1
CF2
VDD1
P10/SOO
P11/SI0/SB0
P12/SCK0
P13/SO1
P27/INT5/SCK9
P26/INT5/SI9/WR9
P25/INT5/SO9/RD9
P24/INT5/INT7/SCK4
P23/INT4/SI4/WR
P22/INT4/SO4/RD
P21/INT4
P20/INT4/INT6
P07/AN7/T7O/LRCK
P06/AN6/T6O/BCLK
P05/AN5/CKO/SDAT
P04/AN4/DBGP2
P31/URX1
P32
P33/AFILT
P34/UFILT
VSS3
VDD3
UHD+
UHD-
P72/INT2/T0IN
P71/INT1/T0HCP/ANP
P70/INT0/T0LCP/AN8
P30/UTX1
P14/SI1/SB1
P15/SCK1
P16/T1PWML
P17/T1PWMH/BUZ
PWM1/MCLKI
PWM0/MCLKO
VDD2
VSS2
P00/AN0
P01/AN1
P02/AN2/DBGP0
P03/AN3/DBGP1
TP462
TP422
TP421
TP461
TP420
R412 100
R411 100
R410 100
TP419
TP418
TP417
ULR
UBCK
UDT
USB HOST
R405 100
R406 0
R433 100
R407 100
TP1280
R408 100
R409 100
DBGP0
DBGP1
DBGP2
TP471
C413 470p/50
C405 0.1u/10
GNDD
SPI_SOMI
SPI_UCLK
CPRST
SPI_nSS
IPIF_SW3
UMCK
IPOD
UD
A 1/6
USB SIGNAL SEL
V3D
L901
QTL1013-A
IC501
STG3157CTR
S1
GND
S2
CONT
VCC
COM
R501 100
USBH_D-S
USBH_D+S
USBN
USBP
C501 0.1u/10
IC502
STG3157CTR
R502 100
USBNM
USBPM
C502 0.1u/10
GNDD

A 4/6 4IN1 MOD ASSY (AWX9179)


ExceptAWX9180
VEF1040-A
JH401
GNDD
On Chip Debugger
CN491
R491
R492
R493
100k
100k
100k
DBGP2
DBGP1
DBGP0
TP423
TP424
TP425
TP426
1 DBGP2
2 DBGP1
3 DBGP0
4 USBRST3
5 GNDD
BRST3
TP427
GNDD
VKN1374-A
CPRST
V+3DU
L481
QTL1013-A
TP440
C481
0.1u/10
GNDD
Co-Processor
TP446
C484
100p/50
CH
V3UI
C485
0.1u/10
C486
470p/50
TP449
C482
5p/50
CH
X481
ASS1172-A
32.768kHz
C483
5p/50
CH
R481
1M
R482 100k
R483 100k
R484 100k
GNDD
1 VCC1
2 XIN
3 XOUT
4 CLOCK_ENAB
5 NC1
6 NC2
7 I2C_SCL
8 I2C_ADDR0
9 I2C_ADDR1
10
40 VCC2
39 VSS
38 nRESET
37 NC18
36 NC17
35 NC16
34 NC15
33 NC14
32 CLOCK_OUT
31 NC13
IC408
341S2154
30 NC12
29 NC11
28 NC10
27 NC9
26 NC8
25 NC7
24 NC6
23 NC5
22 NC4
21
I2C_ADDR2
SPI_UCLK
11 CP_READY
12 MODE0
13 MODE1
14 NC3
15 I2C_SDA
16 MODE2
17 ROSC
18 SPI_nSS
19 SPI_SIMO
20 SPI_SOMI
R489
10
TP445
R486
10k
R490
10k
R488
100k
F%
TP450
TP451
TP452
TP453
CPRDY
SPI_nSS
SPI_SIMO
SPI_SOMI
SPI_UCLK
UD
6
R470
NM
V3D
Q471
2SA1577(QR)
TP439
R471
NM
C471
NM
R472
1k
Q472
DTC143EUA
GNDD
V+3DU
TP442
C472
1u/16
R473
1k
TP441
R474
1k
IC407
NM
5 Vo
4 Vin
1 Vadj
2 GND
3 Vc
GNDD
TP444
V5D
R475
NM
C473
NM
D471
NM
C474
NM
GNDD
UD
A 1/6
R476
NM
USBPWR
USBRST
R477
1.8k
USBRST3
R478
3.3k
GNDD

MODE0	H	2.7V
MODE1	H	SPI
MODE2	L	

10.5 4IN1 MOD ASSY (5/6)

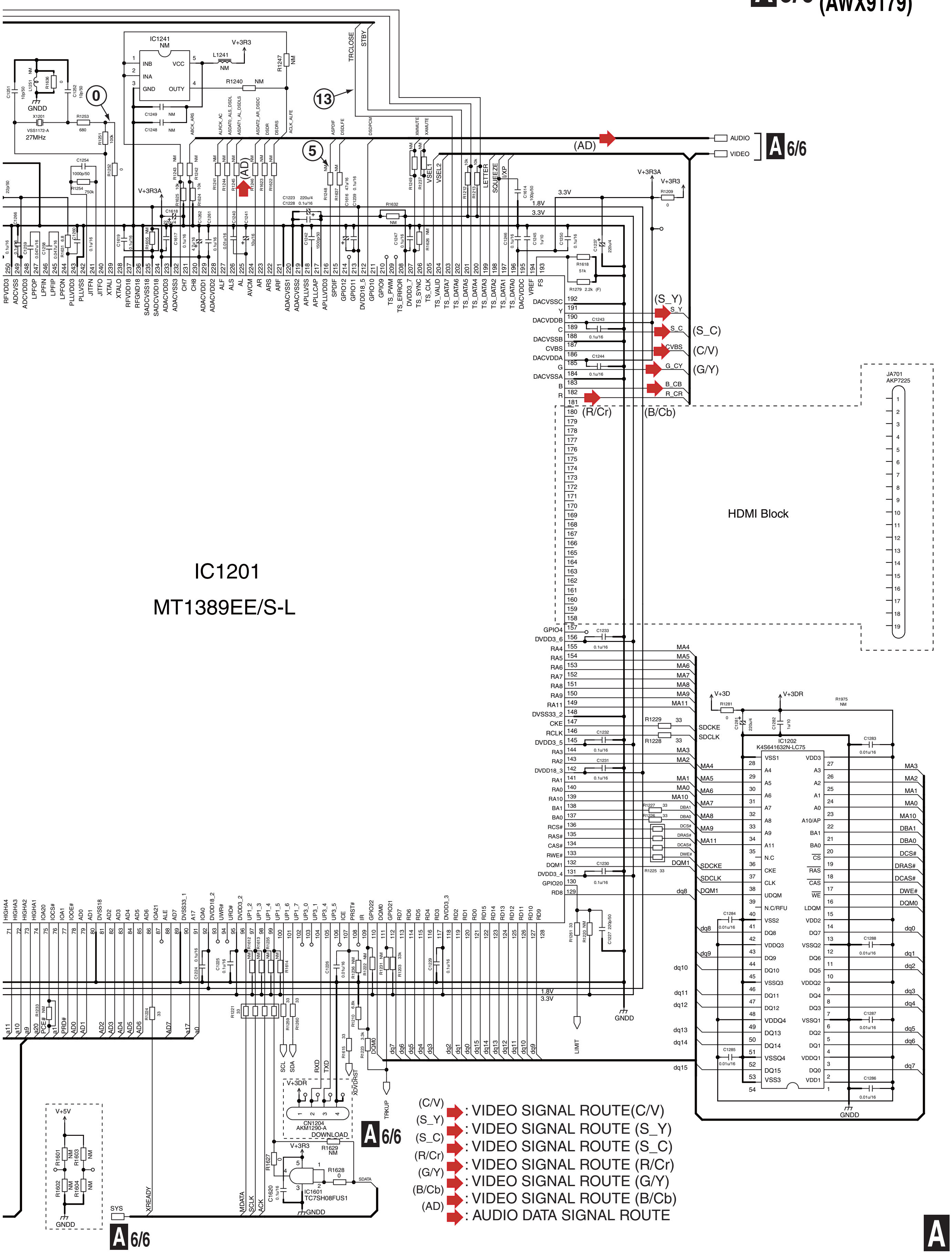


CN1966
VKN2045-A
To PICK UP
GNDD
F
VERF
VCC
E
D
C
SW
RF
B
A
VR650
VRCOM
VR780
GNDD
LD(780)
PD
LD(650)
GNDD
(NC)VSHF
TRKG DRV
TRKG RTN
FOCUS DRV
FOCUS RTN
CN1965
VKN1573-A
To LOAD ASSY
LOAD-
LOAD+
OPEN
GND
CLOSE
CN1964
VKN1574-A
To SPINDLE MOTOR
SW(GND)
LIMIT SW
SLD-
SLD+
SPD-
SPD+
Q1305
UM5K1N
Q1304
2SC4081(QR)
Q1308
HN1A01F(YGR)
Q1307
HN1A01F(YGR)
IC1101
BA5984FP
IC1204
S-24CS64A0I
IC1203
AYW7224-A
CN1953
L1761
VTH1047-A
D1935
D1934
USBPM
USBNM
A 6/6
V+5S
V20
V+3R3
V+1R8
V1P4
V+6R5
V+3D
V+5V
LDO1
LDO2
MDI1
TROUT
TRIN
MOT_SLED-
MOT_SLED+
MOT_SPDL-
MOT_SPDL+
DMSO
FMSO
TROPEN
TRSO
FOSO
X1201
VSS1172-A
27MHz
3.3V
1.8V
OSP
RFGND
CRTPLP
HRFZC
RFRPAC
RFRPDC
ADCVDD3
ADCVSS
LPFOP
LPFIN
LPFIP
LPFON
PLLVDD3
PLLVSS
JITFN
JITFO
XTALI
XTALO
OSN
RFGC
IREF
AVDD3
AGND
DVDA
DVDB
DVDC
DVDD
DVDRFIP
MA
MB
MC
MD
SA
SB
SC/TNI
SD/TPI
MDI1
MDI2
LDO2
LDO1
SVDD3
CSO
RFLVL
SGND
V2REFO
V20
VREFO
FEO
TEO
TEZISLV
OP_OUT
OP_INN
OP_INP
DMO
FMO
TROPENP/WM
PWMOUT1
TRO
FOO
AGND18_D
AVDD18_DM/PLL
USB_DP
USB_DM
VDD33_USB
VSS33_USB
PAD_VRT
VDD18_USB
VSS18_USB
USB_XTALO
USB_XTALI
FG
IOA22
DVDD18_1
IOA2
IOA3
IOA4
IOA5
IOA6
IOA7
HIGHA0
IOA18
IOA19
SCL
SDA
GNDD
GNDM
(RF)
(T)
(F)
(S)
0
12

(RF) : RF SIGNAL ROUTE
(F) : FOCUS SERVO LOOP LINE
(T) : TRACKING SERVO LOOP LINE
(S) : STEPPING SERVO LOOP LINE

A 5/6

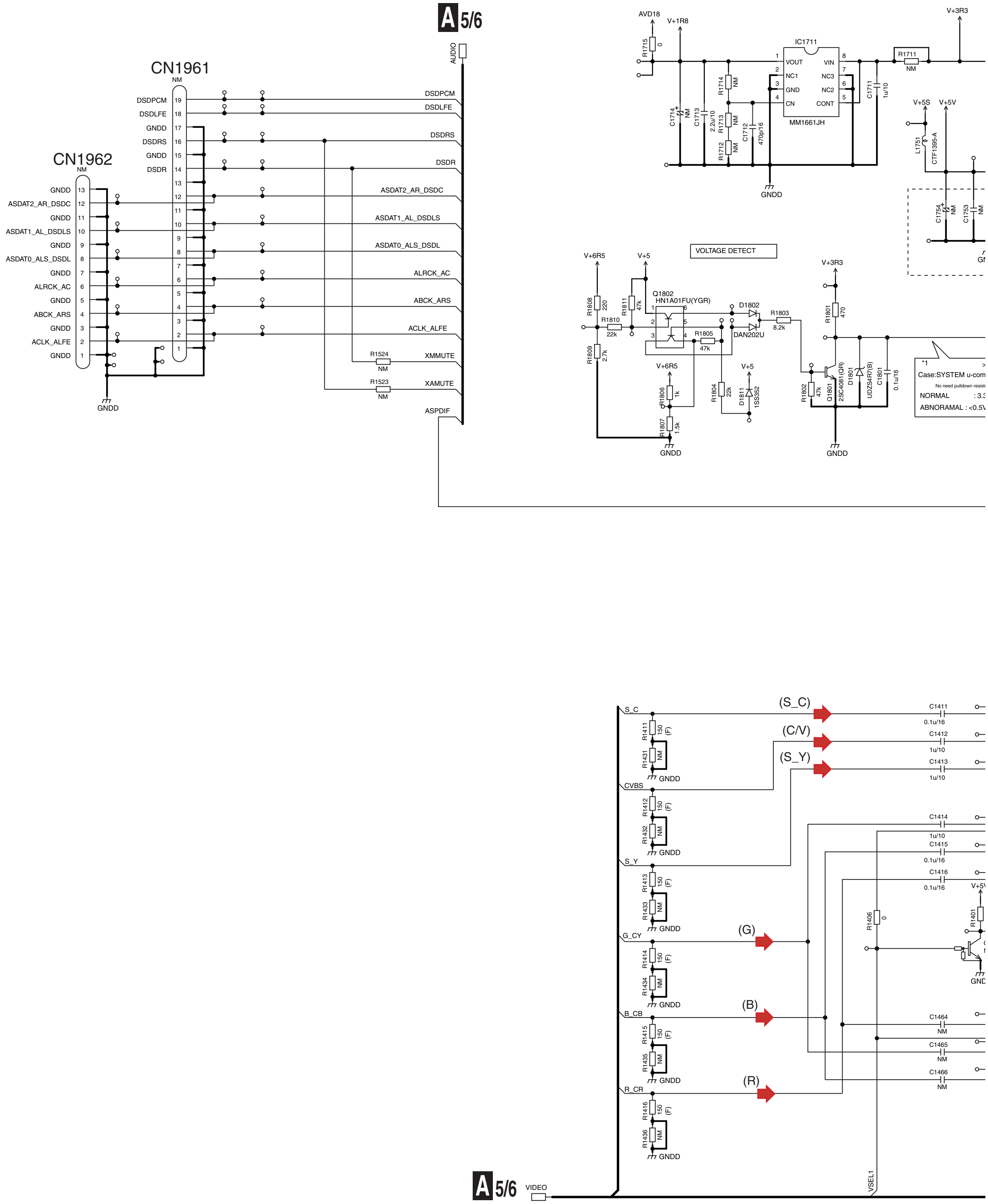
A 5/6 4IN1 MOD ASSY (AWX9179)


IC1201
MT1389EE/S-L
IC1241
NM
V+3R3
L1241
R1240
R1247
TRCLOSE
STBY
X1201
VSS1172-A
27MHz
GNDD
0
13
5
(AD)
AUDIO
VIDEO
A 6/6
V+3R3A
3.3V
1.8V
(S_Y)
S_Y
S_C
(S_C)
CVBS
(C/V)
G_CY
(G/Y)
B_CB
R_CR
(R/Cr)
(B/Cb)
JA701
AKP7225
HDMI Block
IC1202
K4S641632N-LC75
V+3D
V+3DR
SDCKE
SDCLK
DQM1
LIMIT
GNDD
SCL
SDA
RXD
TXD
XDVDRST
TRKUP
CN1204
AKM1290-A
DOWNLOAD
A 6/6
IC1601
TC7SH08FUS1
V+3R3
R1629
NM
R1628
SDATA
MDATA
SCLK
ACK
V+5V
R1601
R1602
R1603
R1604
NM
SYS
XREADY
A 6/6

(C/V) : VIDEO SIGNAL ROUTE(C/V)
(S_Y) : VIDEO SIGNAL ROUTE (S_Y)
(S_C) : VIDEO SIGNAL ROUTE (S_C)
(R/Cr) : VIDEO SIGNAL ROUTE (R/Cr)
(G/Y) : VIDEO SIGNAL ROUTE (G/Y)
(B/Cb) : VIDEO SIGNAL ROUTE (B/Cb)
(AD) : AUDIO DATA SIGNAL ROUTE

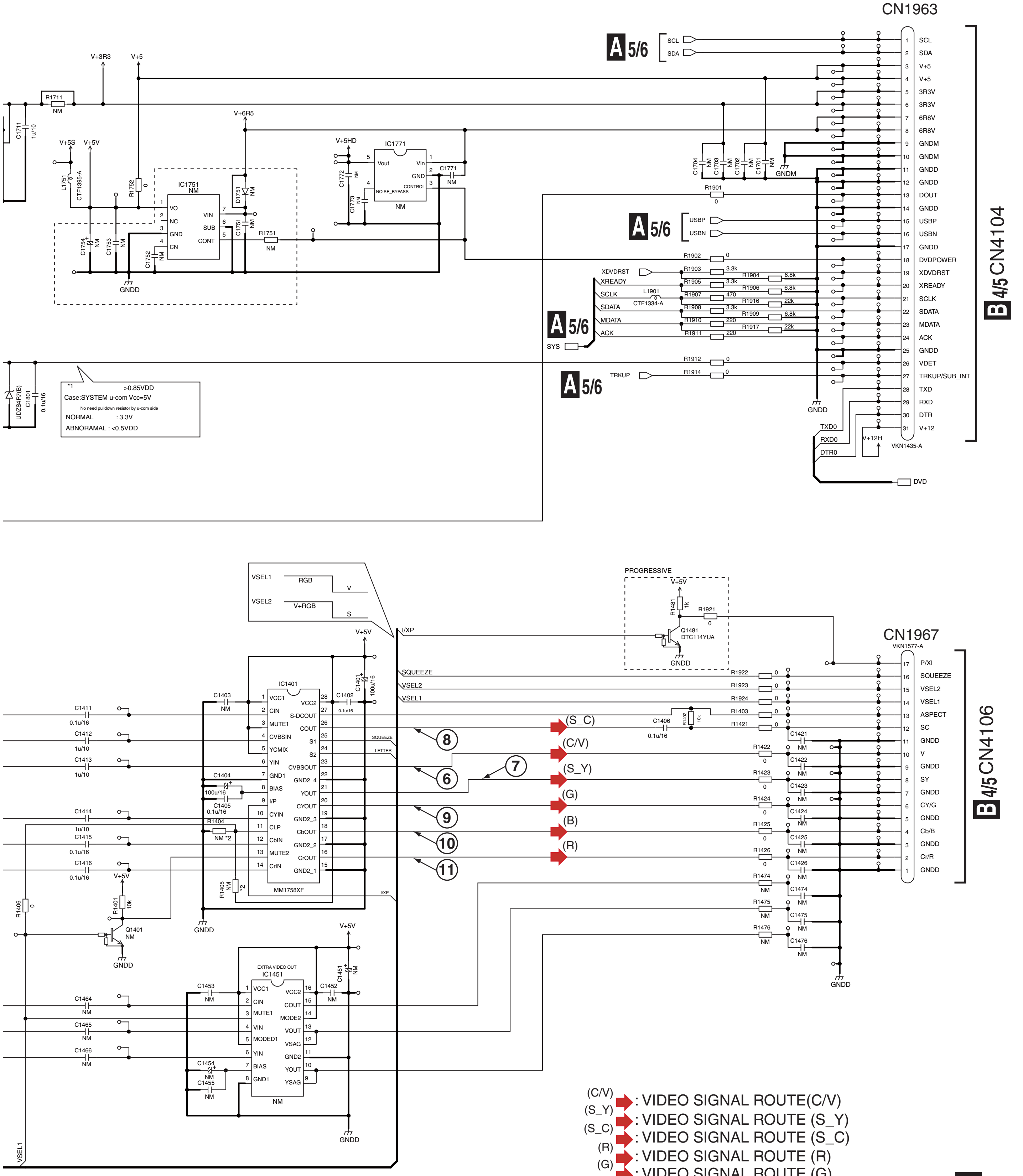
A 5/6

10.6 4IN1 MOD ASSY (6/6)


A 5/6
AUDIO
CN1961
NM
DSDPCM
DSDLFE
GNDD
DSDRS
GNDD
DSDR
CN1962
NM
GNDD
ASDAT2_AR_DSDC
GNDD
ASDAT1_AL_DSDLS
GNDD
ASDAT0_ALS_DSDL
GNDD
ALRCK_AC
GNDD
ABCK_ARS
GNDD
ACLK_ALFE
GNDD
GNDD
DSDPCM
DSDLFE
DSDRS
DSDR
ASDAT2_AR_DSDC
ASDAT1_AL_DSDLS
ASDAT0_ALS_DSDL
ALRCK_AC
ABCK_ARS
ACLK_ALFE
R1524
NM
XMMUTE
R1523
NM
XAMUTE
ASPDIF
AVD18
V+1R8
R1715
0
IC1711
MM1661JH
VOUT
NC1
GND
CN
VIN
NC3
NC2
CONT
R1711
NM
V+3R3
C1711
1u/10
C1714
NM
C1713
2.2u/10
R1714
NM
R1713
NM
R1712
NM
C1712
470p/16
GNDD
V+5S
V+5V
L1751
CTF1395-A
C1754
NM
C1753
NM
VOLTAGE DETECT
V+6R5
V+5
Q1802
HN1A01FU(YGR)
R1808
220
R1811
47k
R1810
22k
R1809
2.7k
R1805
47k
D1802
DAN202U
R1803
8.2k
V+3R3
R1801
470
V+6R5
R1806
1k
R1807
1.5k
GNDD
R1804
22k
V+5
D1811
1SS352
R1802
47k
Q1801
2SC4081(QR)
D1801
UDZS4R7(B)
C1801
0.1u/16
GNDD
*1
Case:SYSTEM u-com
No need pulldown resist
NORMAL : 3.3
ABNORAMAL : <0.5V
S_C
R1411
150
(F)
R1431
NM
GNDD
CVBS
R1412
150
(F)
R1432
NM
GNDD
S_Y
R1413
150
(F)
R1433
NM
GNDD
G_CY
R1414
150
(F)
R1434
NM
GNDD
B_CB
R1415
150
(F)
R1435
NM
GNDD
R_CR
R1416
150
(F)
R1436
NM
GNDD
(S_C)
(C/V)
(S_Y)
(G)
(B)
(R)
C1411
0.1u/16
C1412
1u/10
C1413
1u/10
C1414
1u/10
C1415
0.1u/16
C1416
0.1u/16
V+5V
R1406
0
R1401
GND
C1464
NM
C1465
NM
C1466
NM
VSEL1
A 5/6
VIDEO

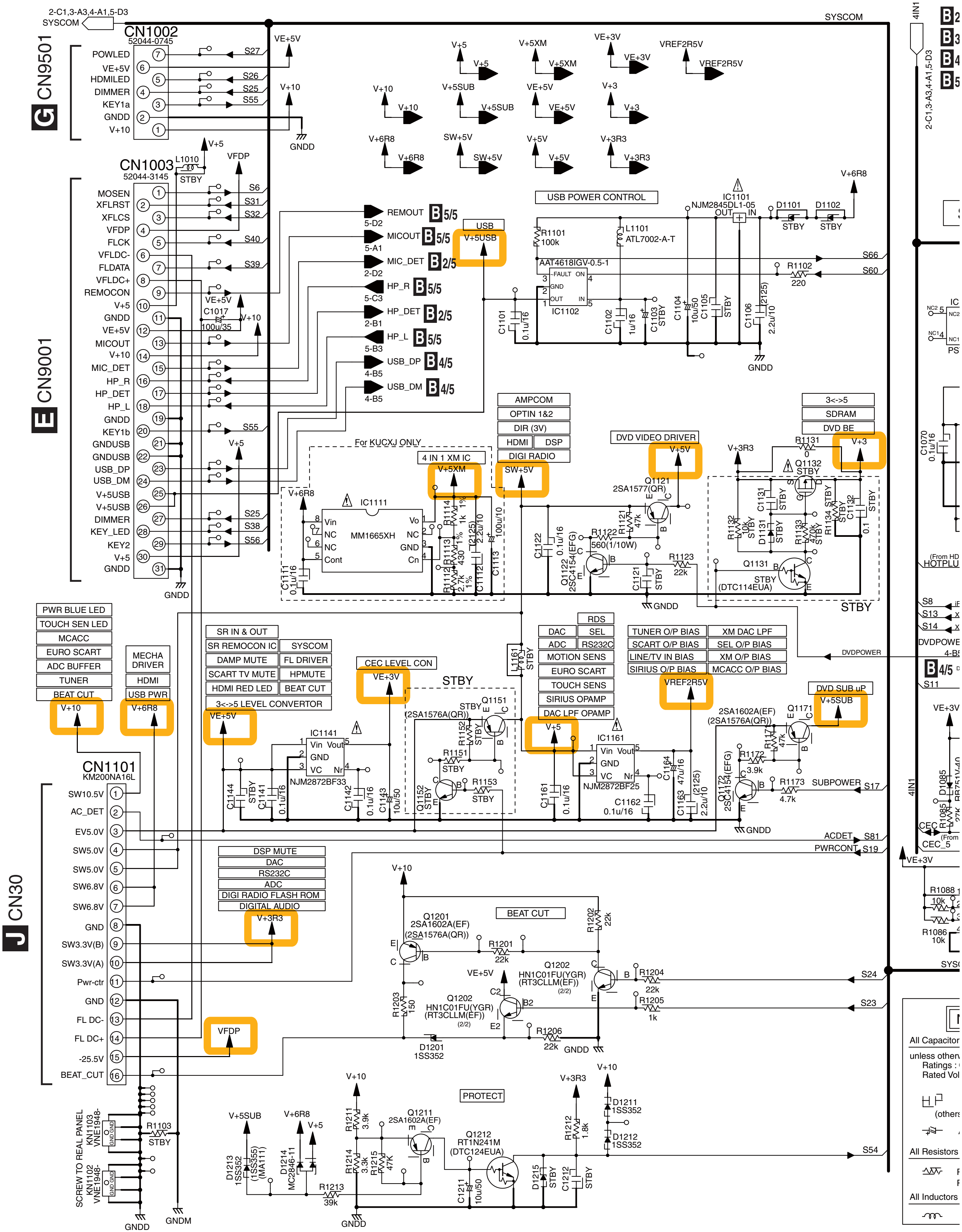
A 6/6

A 6/6 4IN1 MOD ASSY (AWX9179)


CN1963
A 5/6
SCL
SDA
1 SCL
2 SDA
3 V+5
4 V+5
5 3R3V
6 3R3V
7 6R8V
8 6R8V
9 GNDM
10 GNDM
11 GNDD
12 GNDD
13 DOUT
14 GNDD
15 USBP
16 USBN
17 GNDD
18 DVDPOWER
19 XDVDRST
20 XREADY
21 SCLK
22 SDATA
23 MDATA
24 ACK
25 GNDD
26 VDET
27 TRKUP/SUB_INT
28 TXD
29 RXD
30 DTR
31 V+12
VKN1435-A
B 4/5 CN4104
V+3R3
V+5
R1711
NM
C1711
1u/10
V+6R5
V+5S
V+5V
L1751
CTF1395-A
R1752
0
IC1751
NM
VO
NC
GND
CN
VIN
SUB
CONT
D1751
NM
C1751
NM
R1751
NM
C1754
NM
C1753
NM
C1752
NM
GNDD
V+5HD
IC1771
Vout
Vin
GND
CONTROL
NOISE_BYPASS
NM
C1772
NM
C1773
NM
C1771
NM
C1704
C1703
C1702
C1701
NM
GNDM
R1901
0
USBP
USBN
R1902
0
XDVDRST
XREADY
SCLK
SDATA
MDATA
ACK
SYS
L1901
CTF1334-A
R1903 3.3k
R1905 3.3k
R1907 470
R1908 3.3k
R1910 220
R1911 220
R1904 6.8k
R1906 6.8k
R1916 22k
R1909 6.8k
R1917 22k
R1912 0
R1914 0
TRKUP
GNDD
TXD0
RXD0
DTR0
V+12H
DVD
UDZS4R7(B)
C1801
0.1u/16
*1 >0.85VDD
Case:SYSTEM u-com Vcc=5V
No need pulldown resistor by u-com side
NORMAL : 3.3V
ABNORAMAL : <0.5VDD
VSEL1 RGB V
VSEL2 V+RGB S
I/XP
V+5V
PROGRESSIVE
R1481
1k
R1921
0
Q1481
DTC114YUA
GNDD
CN1967
VKN1577-A
17 P/XI
16 SQUEEZE
15 VSEL2
14 VSEL1
13 ASPECT
12 SC
11 GNDD
10 V
9 GNDD
8 SY
7 GNDD
6 CY/G
5 GNDD
4 Cb/B
3 GNDD
2 Cr/R
1 GNDD
B 4/5 CN4106
SQUEEZE
VSEL2
VSEL1
R1922 0
R1923 0
R1924 0
R1403 0
R1421 0
R1402 10k
C1406 0.1u/16
R1422 0
R1423 0
R1424 0
R1425 0
R1426 0
C1421 NM
C1422 NM
C1423 NM
C1424 NM
C1425 NM
C1426 NM
R1474 NM
R1475 NM
R1476 NM
C1474 NM
C1475 NM
C1476 NM
GNDD
(S_C)
(C/V)
(S_Y)
(G)
(B)
(R)
8
7
6
9
10
11
IC1401
MM1758XF
1 VCC1
2 CIN
3 MUTE1
4 CVBSIN
5 YCMIX
6 YIN
7 GND1
8 BIAS
9 I/P
10 CYIN
11 CLP
12 CbIN
13 MUTE2
14 CrIN
28 VCC2
27 S-DCOUT
26 COUT
25 S1
24 S2
23 CVBSOUT
22 GND2_4
21 YOUT
20 CYOUT
19 GND2_3
18 CbOUT
17 GND2_2
16 CrOUT
15 GND2_1
C1403 NM
C1402 0.1u/16
C1401 100u/16
C1404 100u/16
C1405 0.1u/16
R1404 NM *2
R1405 NM *2
SQUEEZE
LETTER
I/XP
C1411 0.1u/16
C1412 1u/10
C1413 1u/10
C1414 1u/10
C1415 0.1u/16
C1416 0.1u/16
R1406 0
R1401 10k
Q1401 NM
GNDD
EXTRA VIDEO OUT
IC1451
1 VCC1
2 CIN
3 MUTE1
4 VIN
5 MODED1
6 YIN
7 BIAS
8 GND1
16 VCC2
15 COUT
14 MODE2
13 VOUT
12 VSAG
11 GND2
10 YOUT
9 YSAG
NM
C1453 NM
C1452 NM
C1451 NM
C1454 NM
C1455 NM
C1464 NM
C1465 NM
C1466 NM
VSEL1
GNDD

(C/V) ➡ : VIDEO SIGNAL ROUTE(C/V)
(S_Y) ➡ : VIDEO SIGNAL ROUTE (S_Y)
(S_C) ➡ : VIDEO SIGNAL ROUTE (S_C)
(R) ➡ : VIDEO SIGNAL ROUTE (R)
(G) ➡ : VIDEO SIGNAL ROUTE (G)
(B) ➡ : VIDEO SIGNAL ROUTE (B)

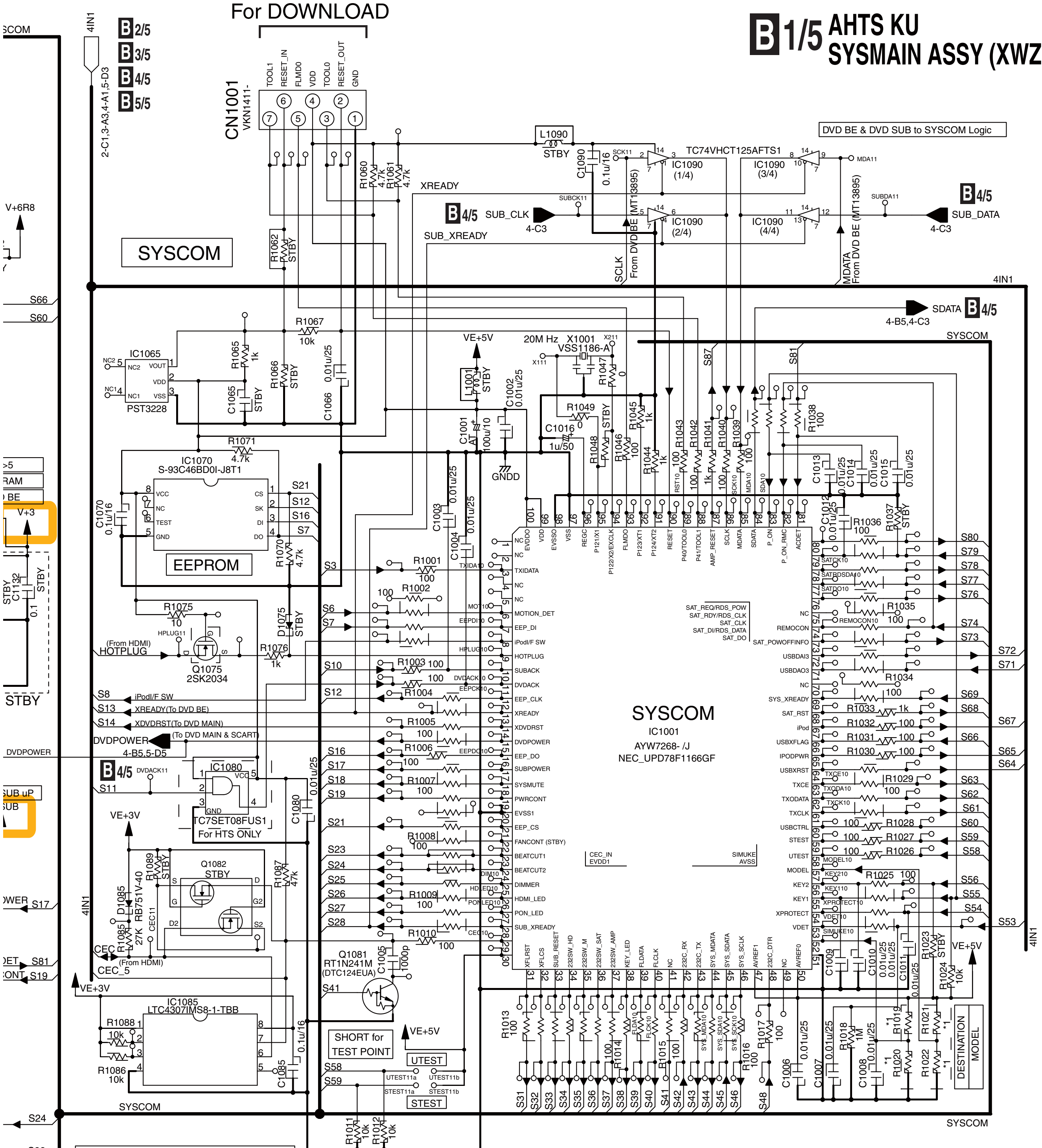
10.7 AHTS KU SYSMAIN ASSY (1/5)



G CN9501
CN1002
52044-0745
POWLED
VE+5V
HDMILED
DIMMER
KEY1a
GNDD
V+10
SYSCOM
2-C1,3-A3,4-A1,5-D3
E CN9001
CN1003
52044-3145
L1010
STBY
MOSEN
XFLRST
XFLCS
VFDP
FLCK
VFLDC-
FLDATA
VFLDC+
REMOCON
V+5
GNDD
VE+5V
MICOUT
V+10
MIC_DET
HP_R
HP_DET
HP_L
KEY1b
GNDUSB
USB_DP
USB_DM
V+5USB
DIMMER
KEY_LED
KEY2
C1017
100u/35
REMOUT
MICOUT
MIC_DET
HP_R
HP_DET
HP_L
USB_DP
USB_DM
B 5/5
B 2/5
B 4/5
USB POWER CONTROL
IC1101
NJM2845DL1-05
IC1102
AAT4618IGV-0.5-1
R1101
100k
L1101
ATL7002-A-T
D1101
D1102
R1102
220
AMPCOM
OPTIN 1&2
DIR (3V)
HDMI
DSP
DIGI RADIO
DVD VIDEO DRIVER
3<->5
SDRAM
DVD BE
4 IN 1 XM IC
For KUCXJ ONLY
IC1111
MM1665XH
Q1121
2SA1577(QR)
Q1122
2SC4154(EFG)
Q1131
(DTC114EUA)
Q1132
STBY
PWR BLUE LED
TOUCH SEN LED
MCACC
EURO SCART
ADC BUFFER
TUNER
BEAT CUT
MECHA DRIVER
HDMI
USB PWR
SR IN & OUT
SR REMOCON IC
SYSCOM
DAMP MUTE
FL DRIVER
SCART TV MUTE
HPMUTE
HDMI RED LED
BEAT CUT
3<->5 LEVEL CONVERTOR
CEC LEVEL CON
IC1141
NJM2872BF33
Q1151
(2SA1576A(QR))
RDS
DAC
SEL
ADC
RS232C
MOTION SENS
EURO SCART
TOUCH SENS
SIRIUS OPAMP
DAC LPF OPAMP
TUNER O/P BIAS
XM DAC LPF
SCART O/P BIAS
SEL O/P BIAS
LINE/TV IN BIAS
XM O/P BIAS
SIRIUS O/P BIAS
MCACC O/P BIAS
IC1161
NJM2872BF25
Q1171
2SA1602A(EF)
(2SA1576A(QR))
DVD SUB uP
SUBPOWER
DVDPOWER
J CN30
CN1101
KM200NA16L
SW10.5V
AC_DET
EV5.0V
SW5.0V
SW6.8V
GND
SW3.3V(B)
SW3.3V(A)
Pwr-ctr
FL DC-
FL DC+
-25.5V
BEAT_CUT
ACDET
PWRCONT
DSP MUTE
DAC
RS232C
ADC
DIGI RADIO FLASH ROM
DIGITAL AUDIO
Q1201
2SA1602A(EF)
(2SA1576A(QR))
BEAT CUT
Q1202
HN1C01FU(YGR)
(RT3CLLM(EF))
D1201
1SS352
PROTECT
Q1211
2SA1602A(EF)
Q1212
RT1N241M
(DTC124EUA)
D1211
1SS352
D1212
1SS352
D1213
1SS352
(1SS355)
(MA111)
D1214
MC2846-11
SCREW TO REAL PANEL
KN1103
VNE1948-
KN1102
VNE1948-
R1103
STBY
GNDD
GNDM
4IN1
All Capacitor
unless other
Ratings :
Rated Vol
All Resistors
All Inductors

B 1/5

B 1/5 AHTS KU
SYSMAIN ASSY (XWZ4363)


For DOWNLOAD
CN1001
VKN1411-
TOOL1
RESET_IN
FLMD0
VDD
TOOL0
RESET_OUT
GND
B 2/5
B 3/5
B 4/5
B 5/5
4IN1
2-C1,3-A3,4-A1,5-D3
SYSCOM
V+6R8
L1090
STBY
C1090
0.1u/16
TC74VHCT125AFTS1
IC1090 (1/4)
IC1090 (2/4)
IC1090 (3/4)
IC1090 (4/4)
DVD BE & DVD SUB to SYSCOM Logic
XREADY
SUB_CLK
SUB_XREADY
SUB_DATA
4-C3
SCLK From DVD BE (MT13895)
MDATA From DVD BE (MT13895)
SDATA
4-B5,4-C3
R1060 4.7k
R1061 4.7k
R1062 STBY
R1067 10k
R1065 1k
R1066 STBY
C1065 STBY
C1066 0.01u/25
IC1065
PST3228
VE+5V
20M Hz X1001
VSS1186-A
L1001 STBY
C1001 100u/10
C1002 0.01u/25
C1016 1u/50
R1049 0
R1047 0
GNDD
R1071 4.7k
IC1070
S-93C46BD0I-J8T1
EEPROM
C1070 0.1u/16
R1070 4.7k
R1075 10
HPLUG11
(From HDMI) HOTPLUG
Q1075 2SK2034
D1075 STBY
R1076 1k
iPod/F SW
XREADY(To DVD BE)
XDVDRST(To DVD MAIN)
(To DVD MAIN & SCART)
DVDPOWER
4-B5,5-D5
DVDACK11
IC1080
TC7SET08FUS1
For HTS ONLY
C1080 0.01u/25
VE+3V
Q1082 STBY
R1089 STBY
D1085 RB751V-40
R1085 27K
CEC11
R1087 47k
CEC
CEC_5
(From HDMI)
Q1081 RT1N241M (DTC124EUA)
C1005 1000p
IC1085
LTC4307IMS8-1-TBB
R1088 10k
R1086 10k
C1085 0.1u/16
SHORT for TEST POINT
UTEST
STEST
UTEST11a UTEST11b
STEST11a STEST11b
R1011 10k
R1012 10k
SYSCOM
IC1001
AYW7268- /J
NEC_UPD78F1166GF
R1001 100
R1002 100
R1003 100
R1004 100
R1005 100
R1006 100
R1007 100
R1008 100
R1009 100
R1010 100
R1013 100
R1014 100
R1015 100
R1016 100
R1017 100
R1018 1M
R1019 *1
R1020 *1
R1021 *1
R1022 *1
R1023 STBY
R1024 10k
R1025 100
R1026 100
R1027 100
R1028 100
R1029 100
R1030 100
R1031 100
R1032 100
R1033 1k
R1034 100
R1035 100
R1036 100
R1037 STBY
R1038 100
R1039 100
R1040 100
R1041 1k
R1042 100
R1043 100
R1044 1k
R1045 1k
R1046 100
R1048
C1003 0.01u/25
C1004 0.01u/25
C1006 0.01u/25
C1007 0.01u/25
C1008 0.01u/25
C1009 0.01u/25
C1010 0.01u/25
C1011 0.01u/25
C1012 0.01u/25
C1013 0.01u/25
C1014 0.01u/25
C1015 0.01u/25
DESTINATION MODEL
S3 S6 S7 S8 S10 S11 S12 S13 S14 S16 S17 S18 S19 S21 S23 S24 S25 S26 S27 S28 S31 S32 S33 S34 S35 S36 S37 S38 S39 S40 S41 S42 S43 S44 S45 S46 S48 S53 S54 S55 S56 S58 S59 S60 S61 S62 S63 S64 S65 S66 S67 S68 S69 S71 S72 S73 S74 S76 S77 S78 S79 S80 S81 S87
VE+5V
STBY

NOTES

All Capacitors are in p-pF or uF

unless otherwise specified
Ratings : Capacity(uF)/Voltage(V)
Rated Voltage : 50V unless otherwise specified

CH : CCSRCH(1608size)
(others : CKSRYB(1608size))

AL : CEAL

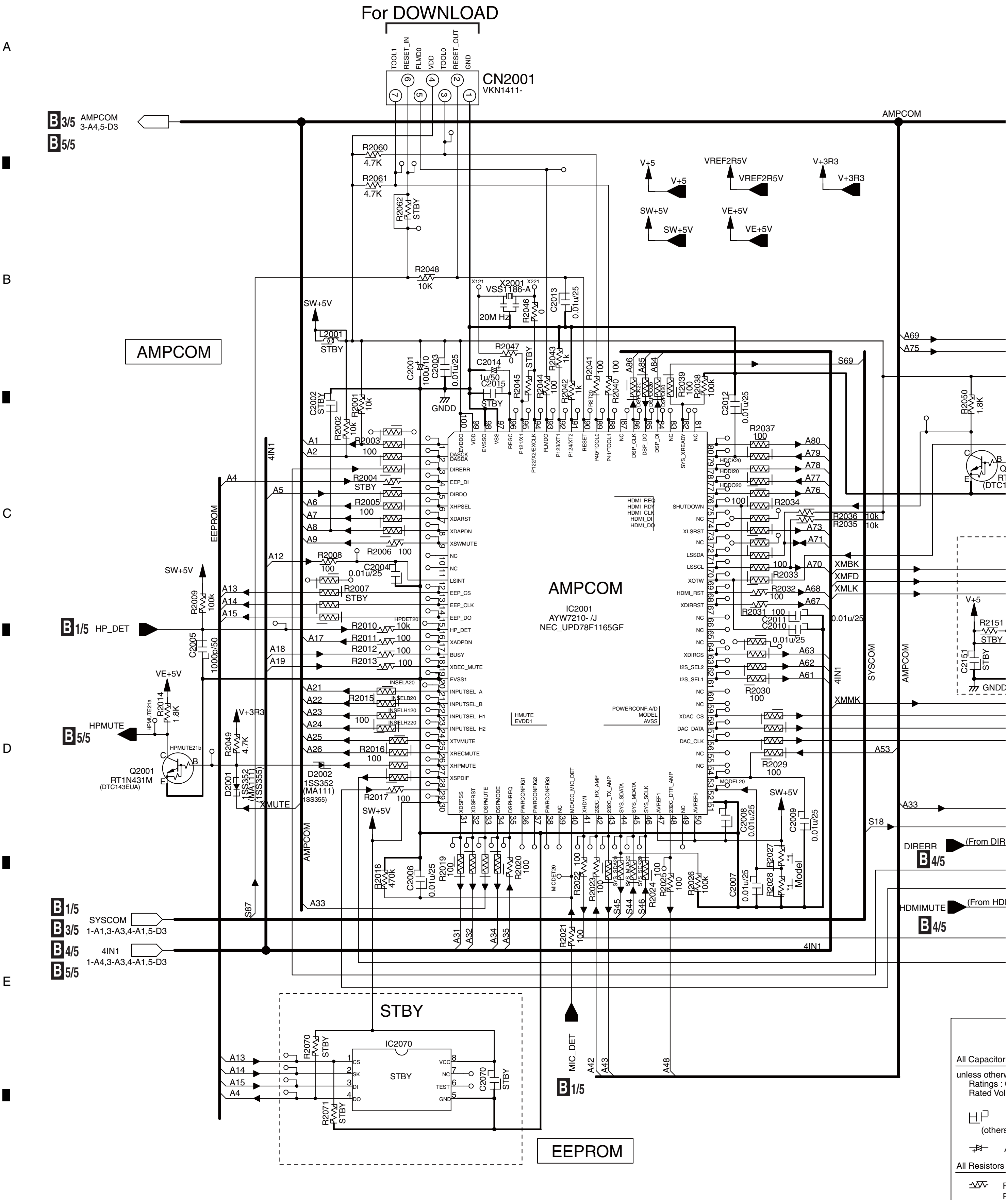
All Resistors are in k-kΩ, M-MΩor Ω

RS1/16S***J(1608size)
RS1/16S***F(1608size)

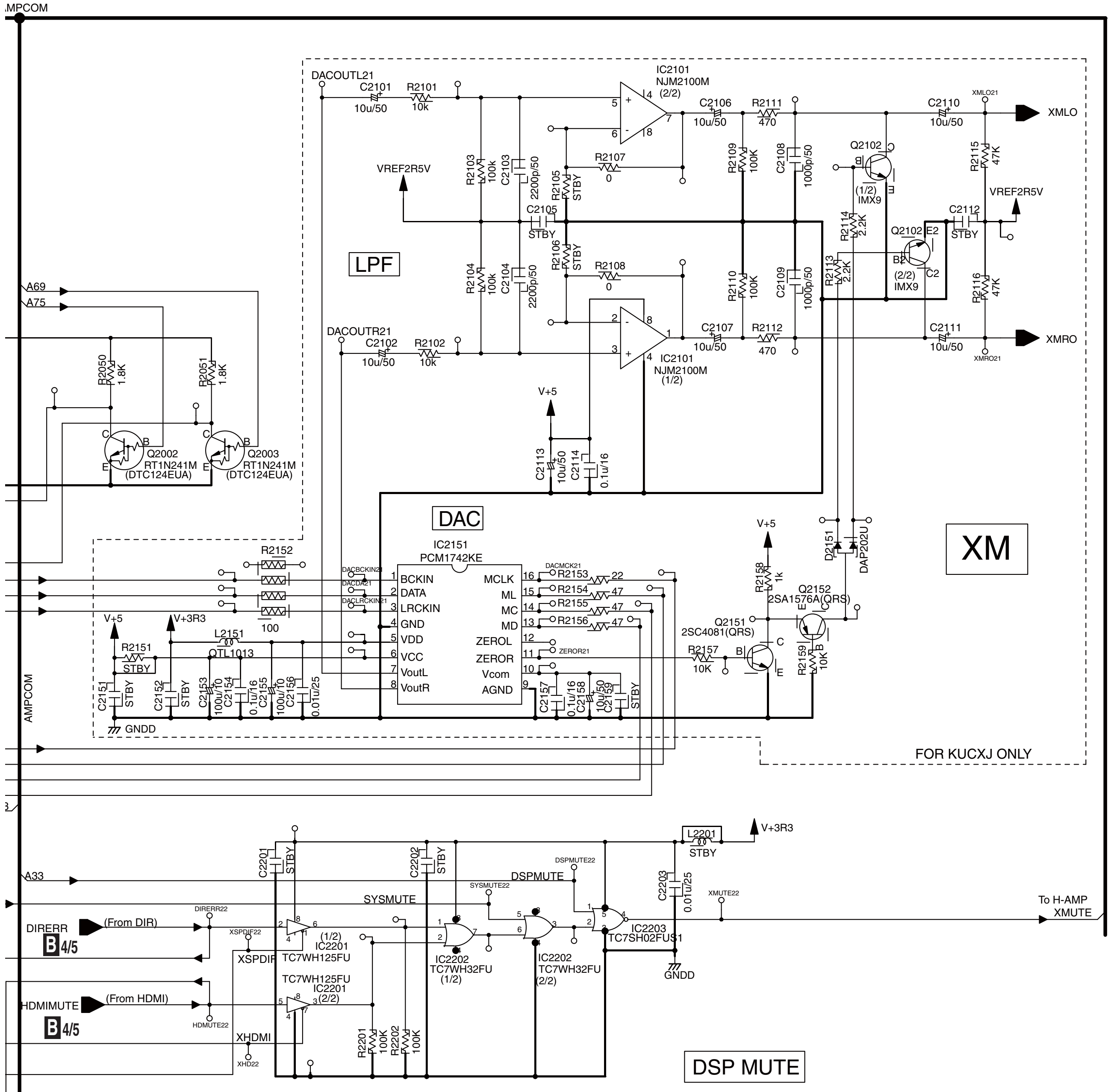
All Inductors are in uH

		Adv-HTS					
System Model No.		XV-LX03		XV-LX61DV			
Area		Europe	Russia	N.America	Japan	Singapore Australia	China
*1		/WVYXJ5	/WSXJ5	/KUCXJ	/JJXJ	/WLPWXJ	/NAXJ5
XWZ		4362	<-	4363	4364	4365	4366
Destination Resistors	R1019	-	-	39K	68K	47K	10K
	R1020	47K	47K	33K	15K	-	33K
Models Resistors	R1021	-	-	-	-	-	-
	R1022	47K	47K	47K	47K	47K	47K

10.8 AHTS KU SYSMAIN ASSY (2/5)


A
B
C
D
E
F
For DOWNLOAD
TOOL1
RESET_IN
FLMD0
VDD
TOOL0
RESET_OUT
GND
CN2001
VKN1411-
B 3/5 AMPCOM 3-A4,5-D3
B 5/5
AMPCOM
R2060 4.7K
R2061 4.7K
R2062 STBY
V+5
VREF2R5V
V+3R3
SW+5V
VE+5V
R2048 10K
X2001 VSS1186-A
20M Hz
X121
X221
R2046 0
C2013 0.01u/25
SW+5V
L2001 STBY
AMPCOM
R2047 0
C2014 1u/50
C2015 STBY
C2001 100u/10
C2003 0.01u/25
GNDD
C2002 STBY
R2001 10k
R2002 10k
R2045 STBY
R2044 100
R2043 1k
R2042 1k
R2041 100
R2040 100
A86
A85
A84
R2039 100
R2038 100k
C2012 0.01u/25
S69
A69
A75
R2050 1.8K
4IN1
A1
A2
R2003 100
A4
R2004 STBY
A5
A6
A7
A8
A9
R2005 100
EEPROM
A12
R2008 100
R2006 100
C2004 0.01u/25
SW+5V
R2009 100k
A13
A14
A15
R2007 STBY
B 1/5 HP_DET
R2010 10k
HPDET20
A17
R2011 100
C2005 1000p/50
A18
R2012 100
A19
R2013 100
VE+5V
R2014 1.8K
HPMUTE21a
HPMUTE21b
B 5/5 HPMUTE
Q2001 RT1N431M (DTC143EUA)
V+3R3
R2049 4.7K
D2001 1SS352 (MA111) (1SS355)
XMUTE
A21
A22
A23
A24
A25
A26
R2015 100
INSELA20
INSELB20
INSELH120
INSELH220
R2016 100
D2002 1SS352 (MA111) (1SS355)
R2017 100
SW+5V
EVDD0
VDD
EVSS0
VSS
REGC
P121/X1
P122/X2/EXCLK
FLMD0
P123/XT1
P124/XT2
RESET
P40/TOOL0
P41/TOOL1
NC
DSP_CLK
DSP_DO
DSP_DI
NC
SYS_XREADY
NC
RST20
DSPCK20
DSPDO20
DSPDI20
DASCK DASDA
DIRERR
EEP_DI
DIRDO
XHPSEL
XDARST
XDAPDN
XSWMUTE
NC
NC
LSINT
EEP_CS
EEP_CLK
EEP_DO
HP_DET
XADPDN
BUSY
XDEC_MUTE
EVSS1
INPUTSEL_A
INPUTSEL_B
INPUTSEL_H1
INPUTSEL_H2
XTVMUTE
XRECMUTE
XHPMUTE
XSPDIF
AMPCOM
IC2001
AYW7210- /J
NEC_UPD78F1165GF
HDMI_REQ
HDMI_RDY
HDMI_CLK
HDMI_DI
HDMI_DO
SHUTDOWN
NC
XLSRST
NC
LSSDA
LSSCL
XOTW
HDMI_RST
XDIRRST
NC
NC
NC
XDIRCS
I2S_SEL2
I2S_SEL1
NC
NC
XDAC_CS
DAC_DATA
DAC_CLK
NC
NC
MODEL20
HMUTE
EVDD1
POWERCONF:A/D
MODEL
AVSS
HDCK20
HDDI20
HDDO20
A80
A79
A78
A77
A76
R2037 100
100 R2034
R2036 10k
R2035 10k
A73
A71
A70
100 R2033
XMBK
XMFD
XMLK
R2032 100
A68
A67
R2031 100
C2011
C2010
0.01u/25
0.01u/25
A63
A62
A61
R2030 100
XMMK
4IN1
SYSCOM
AMPCOM
A53
R2029 100
V+5
R2151 STBY
C2151 STBY
GNDD
XDSPSS
XDSPRST
DSPMUTE
DSPMODE
DSPHREQ
PWRCONFIG1
PWRCONFIG2
PWRCONFIG3
NC
MCACC_MIC_DET
XHDMI
232C_RX_AMP
232C_TX_AMP
SYS_SDATA
SYS_MDATA
SYS_SCLK
AVREF1
232C_DTR_AMP
NC
AVREF0
SW+5V
C2008 0.01u/25
C2009 0.01u/25
A33
S18
DIRERR (From DIR
B 4/5
HDMIMUTE (From HD
B 4/5
AMPCOM
R2018 470k
C2006 0.01u/25
R2019 100
R2020 100
MICDET20
R2022 100
R2023 100
SYS_SDA20
SYS_MDA20
SYS_SCL20
R2024 100
R2025 100
R2026 100k
C2007 0.01u/25
R2027
R2028
Model
A33
S87
S45
S44
S46
B 1/5 SYSCOM 1-A1,3-A3,4-A1,5-D3
B 3/5
B 4/5 4IN1 1-A4,3-A3,4-A1,5-D3
B 5/5
A31
A32
A34
A35
R2021 100
4IN1
STBY
IC2070
R2070 STBY
R2071 STBY
A13
A14
A15
A4
CS
SK
DI
DO
VCC
NC
TEST
GND
STBY
C2070 STBY
MIC_DET
B 1/5
A42
A43
A48
EEPROM
All Capacitor
unless otherw
Ratings :
Rated Vol
(others
All Resistors
All Inductors
Q
(DTC1

B 2/5 AHTS KU SYSMAIN ASSY (XWZ4363)


AMPCOM
DACOUTL21
C2101 10u/50
R2101 10k
IC2101 NJM2100M (2/2)
C2106 10u/50
R2111 470
C2110 10u/50
XMLO21
XMLO
VREF2R5V
R2103 100k
C2103 2200p/50
R2105 STBY
R2107 0
R2109 100K
C2108 1000p/50
Q2102 (1/2) IMX9
R2115 47K
C2105 STBY
R2114 2.2K
Q2102 (2/2) IMX9
C2112 STBY
LPF
R2104 100k
C2104 2200p/50
R2106 STBY
R2108 0
R2110 100K
C2109 1000p/50
R2113 2.2K
R2116 47K
A69
A75
DACOUTR21
C2102 10u/50
R2102 10k
C2107 10u/50
R2112 470
C2111 10u/50
XMRO
XMRO21
IC2101 NJM2100M (1/2)
R2050 1.8K
R2051 1.8K
V+5
Q2002 RT1N241M (DTC124EUA)
Q2003 RT1N241M (DTC124EUA)
C2113 10u/50
C2114 0.1u/16
DAC
IC2151 PCM1742KE
R2152
100
DACBCKIN21
DACDA21
DACLRCKIN21
BCKIN DATA LRCKIN GND VDD VCC VoutL VoutR
MCLK ML MC MD ZEROL ZEROR Vcom AGND
DACMCK21
R2153 22
R2154 47
R2155 47
R2156 47
ZEROR21
V+5
V+3R3
L2151 OTL1013
R2151 STBY
C2151 STBY
C2152 STBY
C2153 100u/10
C2154 0.1u/16
C2155 100u/10
C2156 0.01u/25
C2157 0.1u/16
C2158 10u/50
C2159 STBY
GNDD
R2157 10K
Q2151 2SC4081(QRS)
Q2152 2SA1576A(QRS)
R2158 1k
R2159 10K
D2151 DAP202U
XM
FOR KUCXJ ONLY
V+3R3
L2201 STBY
C2201 STBY
C2202 STBY
C2203 0.01u/25
A33
DSPMUTE22
DSPMUTE
SYSMUTE22
SYSMUTE
XMUTE22
To H-AMP XMUTE
DIRERR22
DIRERR
(From DIR)
B 4/5
XSPDIF22
XSPDIF
IC2201 (1/2) TC7WH125FU
IC2201 (2/2) TC7WH125FU
IC2202 TC7WH32FU (1/2)
IC2202 TC7WH32FU (2/2)
IC2203 TC7SH02FUS1
GNDD
HDMIMUTE
(From HDMI)
HDMUTE22
XHDMI
XHD22
R2201 100K
R2202 100K
DSP MUTE

NOTES

All Capacitors are in p-pF or uF

unless otherwise specified
Ratings : Capacity(uF)/Voltage(V)
Rated Voltage : 50V unless otherwise specified

CH : CCSRCH(1608size)
(others : CKSRYB(1608size))

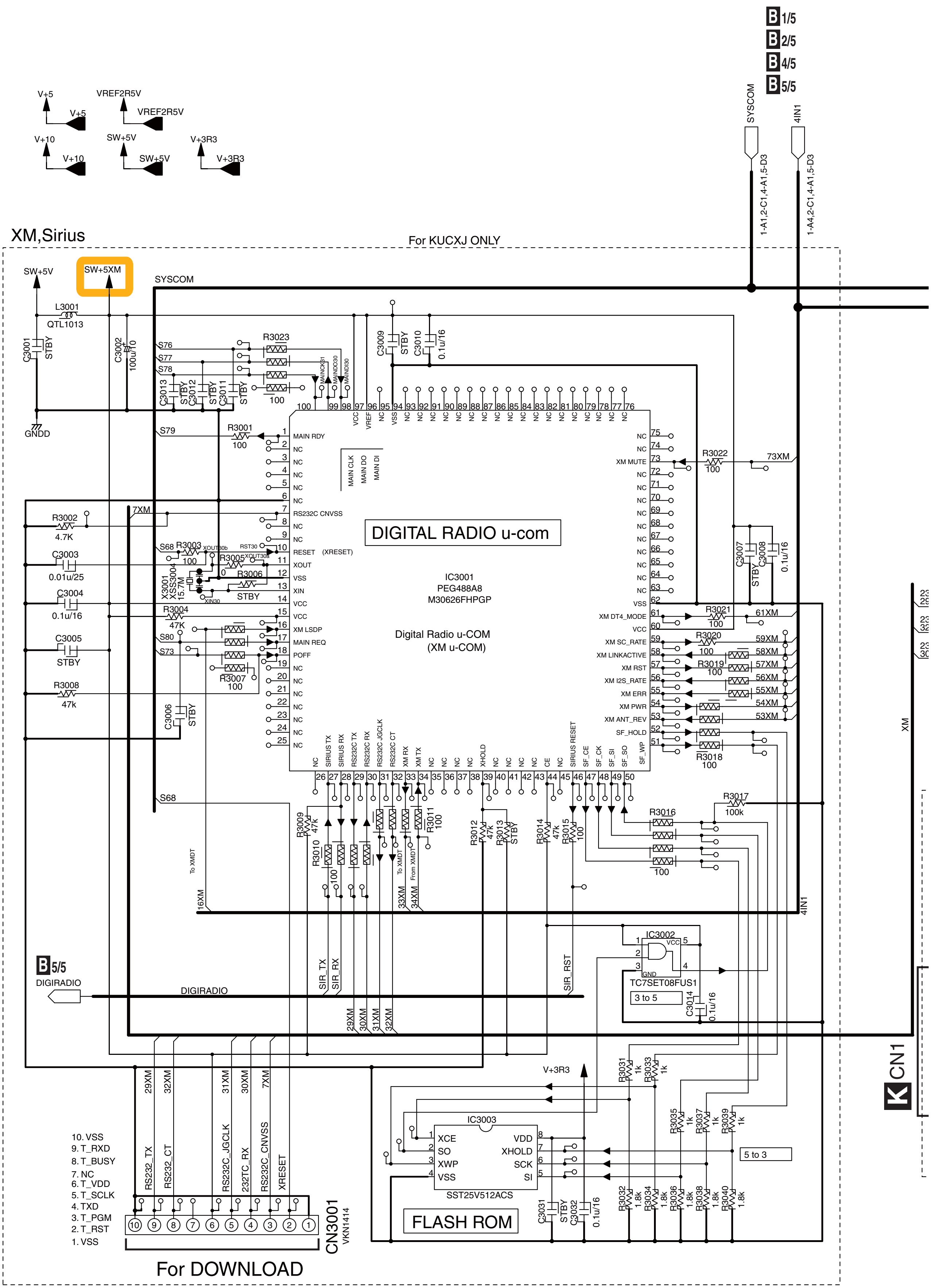
AL : CEAL

All Resistors are in k-kΩ, M-MΩor Ω

RS1/16S***J(1608size)
RS1/16S***F(1608size)

All Inductors are in uH

10.9 AHTS KU SYSMAIN ASSY (3/5)


B 1/5
B 2/5
B 4/5
B 5/5
SYSCOM
4IN1
1-A1,2-C1,4-A1,5-D3
1-A4,2-C1,4-A1,5-D3
V+5
VREF2R5V
V+10
SW+5V
V+3R3
XM,Sirius
For KUCXJ ONLY
SW+5XM
SYSCOM
L3001
QTL1013
C3001
STBY
C3002
100u/10
GNDD
R3023
S76
S77
S78
C3013
STBY
C3012
STBY
C3011
STBY
100
MAINCK30
MAINDO30
MAINDI30
C3009
STBY
C3010
0.1u/16
S79
R3001
100
MAIN RDY
MAIN CLK
MAIN DO
MAIN DI
RS232C CNVSS
7XM
R3002
4.7K
C3003
0.01u/25
C3004
0.1u/16
C3005
STBY
R3008
47k
S68
R3003
100
XOUT30b
RST30
R3005
XOUT30
R3006
X3001
XSS3004
15.7M
XIN30
STBY
RESET (XRESET)
XOUT
VSS
XIN
VCC
R3004
47K
XM LSDP
MAIN REQ
POFF
S80
S73
R3007
100
C3006
STBY
DIGITAL RADIO u-com
IC3001
PEG488A8
M30626FHPGP
Digital Radio u-COM
(XM u-COM)
XM MUTE
R3022
100
73XM
VSS
XM DT4_MODE
XM SC_RATE
XM LINKACTIVE
XM RST
XM I2S_RATE
XM ERR
XM PWR
XM ANT_REV
SF_HOLD
R3021
100
61XM
R3020
100
59XM
58XM
R3019
100
57XM
56XM
55XM
54XM
53XM
R3018
100
C3007
STBY
C3008
0.1u/16
SIRIUS TX
SIRIUS RX
RS232C TX
RS232C RX
RS232C JGCLK
RS232C CT
XM RX
XM TX
XHOLD
CE
SIRIUS RESET
SF_CE
SF_CK
SF_SI
SF_SO
SF_WP
S68
R3009
47k
R3010
100
R3011
100
To XMDT
From XMDT
33XM
34XM
16XM
To XMDT
R3012
47k
R3013
STBY
R3014
47k
R3015
100
R3016
100
R3017
100k
4IN1
XM
IC3002
VCC
GND
TC7SET08FUS1
3 to 5
C3014
0.1u/16
B 5/5
DIGIRADIO
DIGIRADIO
SIR_TX
SIR_RX
SIR_RST
29XM
30XM
31XM
32XM
V+3R3
R3031
1k
R3033
1k
R3035
1k
R3037
1k
R3039
1k
IC3003
XCE
SO
XWP
VSS
VDD
XHOLD
SCK
SI
SST25V512ACS
5 to 3
FLASH ROM
C3031
STBY
C3032
0.1u/16
R3032
1.8k
R3034
1.8k
R3036
1.8k
R3038
1.8k
R3040
1.8k
29XM
32XM
31XM
30XM
7XM
RS232_TX
RS232_CT
RS232C_JGCLK
232TC_RX
RS232C_CNVSS
XRESET
10. VSS
9. T_RXD
8. T_BUSY
7. NC
6. T_VDD
5. T_SCLK
4. TXD
3. T_PGM
2. T_RST
1. VSS
CN3001
VKN1414
For DOWNLOAD
K CN1

B 3/5 AHTS KU SYSMAIN ASSY (XWZ4363)

NOTES

All Capacitors are in p-pF or uF

unless otherwise specified
Ratings : Capacity(uF)/Voltage(V)
Rated Voltage : 50V unless
otherwise specified

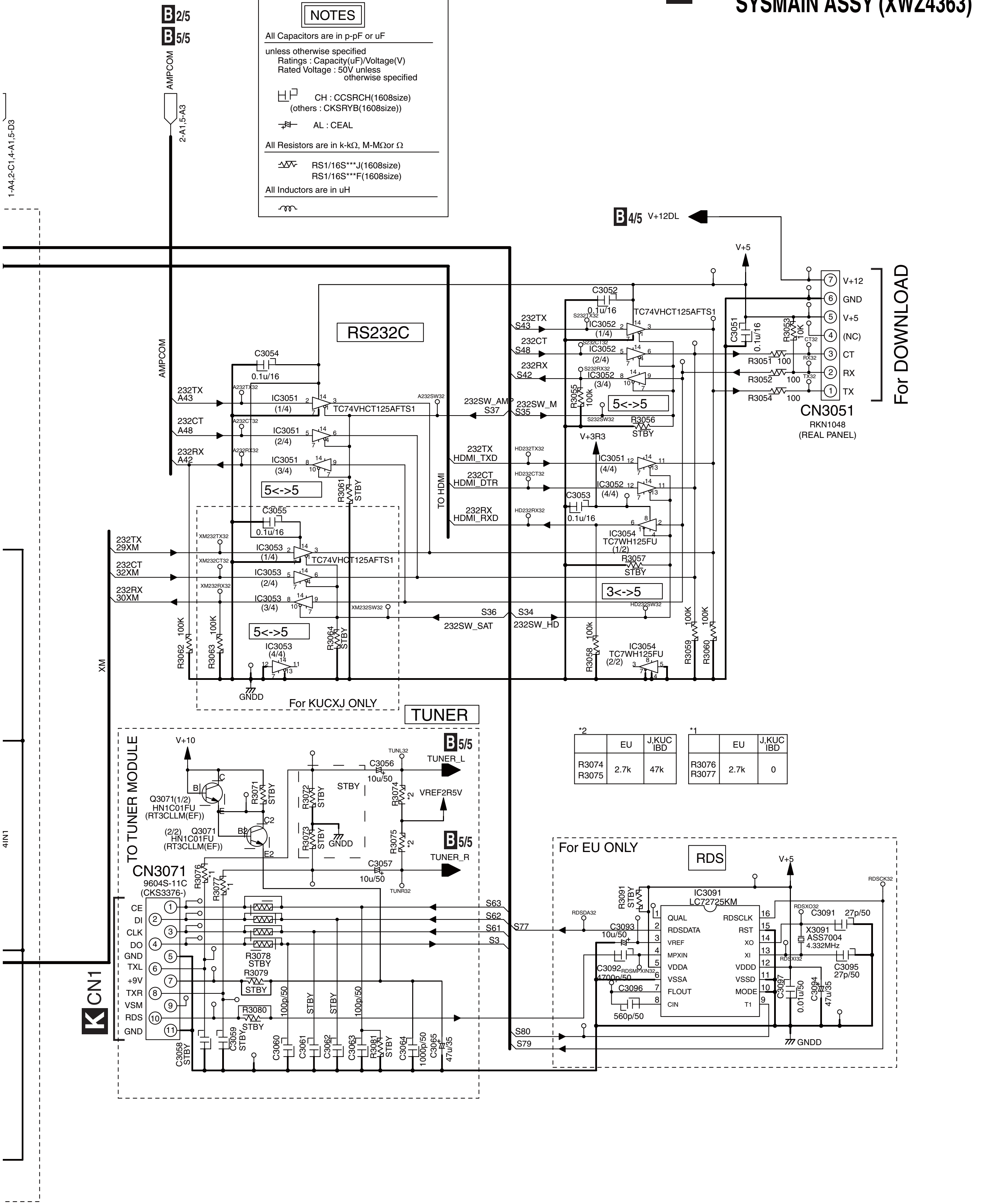
CH : CCSRCH(1608size)
(others : CKSRYB(1608size))

AL : CEAL

All Resistors are in k-kΩ, M-MΩor Ω

RS1/16S***J(1608size)
RS1/16S***F(1608size)

All Inductors are in uH



B 2/5
B 5/5
AMPCOM
2-A1,5-A3
1-A4,2-C1,4-A1,5-D3
B 4/5 V+12DL
V+5
RS232C
C3054 0.1u/16
232TX A43
232CT A48
232RX A42
IC3051 (1/4)
IC3051 (2/4)
IC3051 (3/4)
TC74VHCT125AFTS1
5<->5
R3061 STBY
C3055 0.1u/16
232TX 29XM
232CT 32XM
232RX 30XM
IC3053 (1/4)
IC3053 (2/4)
IC3053 (3/4)
IC3053 (4/4)
R3062 100K
R3063 100K
R3064 STBY
GNDD
For KUCXJ ONLY
TO HDMI
232SW_AMP S37
232SW_M S35
232TX S43
232CT S48
232RX S42
C3052 0.1u/16
IC3052 (1/4)
IC3052 (2/4)
IC3052 (3/4)
IC3052 (4/4)
R3055 100k
R3056 STBY
V+3R3
232TX HDMI_TXD
232CT HDMI_DTR
232RX HDMI_RXD
IC3051 (4/4)
C3053 0.1u/16
IC3054 TC7WH125FU (1/2)
IC3054 TC7WH125FU (2/2)
R3057 STBY
3<->5
S36 232SW_SAT
S34 232SW_HD
R3058 100k
R3059 100K
R3060 100K
C3051 0.1u/16
R3053 10K
R3051 100
R3052 100
R3054 100
CN3051 RKN1048 (REAL PANEL)
7 V+12
6 GND
5 V+5
4 (NC)
3 CT
2 RX
1 TX
For DOWNLOAD
XM
4IN1
TUNER
TO TUNER MODULE
V+10
Q3071(1/2) HN1C01FU (RT3CLLM(EF))
(2/2) Q3071 HN1C01FU (RT3CLLM(EF))
R3071 STBY
R3072 STBY
R3073 STBY
R3074 *2
R3075 *2
R3076 *1
R3077 *1
C3056 10u/50
C3057 10u/50
TUNER_L
TUNER_R
VREF2R5V
B 5/5
CN3071 9604S-11C (CKS3376-)
1 CE
2 DI
3 CLK
4 DO
5 GND
6 TXL
7 +9V
8 TXR
9 VSM
10 RDS
11 GND
R3078 STBY
R3079 STBY
R3080 STBY
R3081 STBY
C3058 STBY
C3059 STBY
C3060 100p/50
C3061 STBY
C3062 STBY
C3063 100p/50
C3064 1000p/50
C3065 47u/35
K CN1
S63
S62
S61 S77
S3
S80
S79
For EU ONLY
RDS
V+5
IC3091 LC72725KM
QUAL
RDSDATA
VREF
MPXIN
VDDA
VSSA
FLOUT
CIN
RDSCLK
RST
XO
XI
VDDD
VSSD
MODE
T1
R3091 STBY
C3093 10u/50
C3092 4700p/50
C3096 560p/50
C3091 27p/50
X3091 ASS7004 4.332MHz
C3095 27p/50
C3097 0.01u/50
C3094 47u/35
GNDD

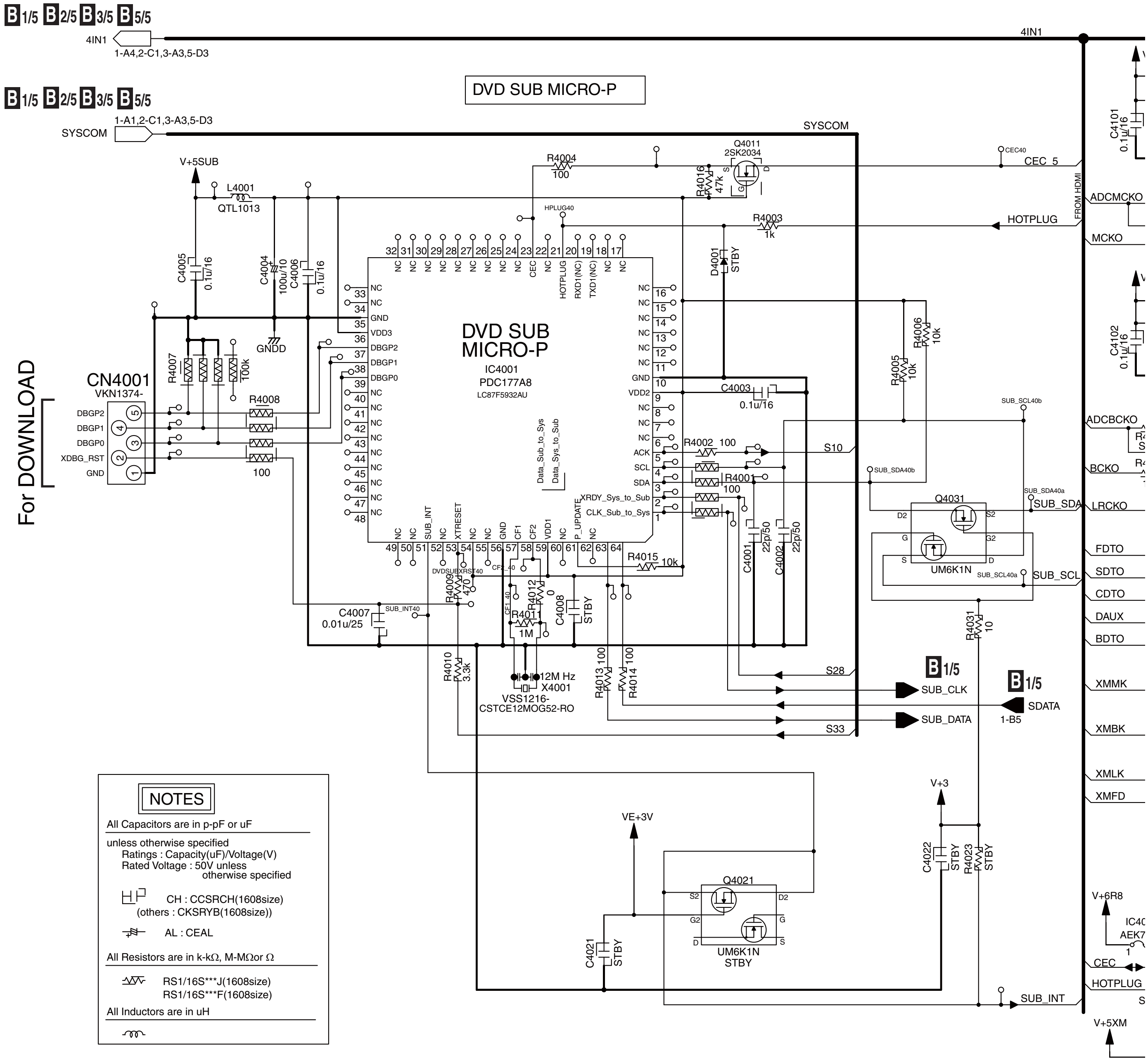
*2

	EU	J.KUC IBD
R3074 R3075	2.7k	47k

*1

	EU	J.KUC IBD
R3076 R3077	2.7k	0

10.10 AHTS KU SYSMAIN ASSY (4/5)


B 1/5 B 2/5 B 3/5 B 5/5
4IN1
1-A4,2-C1,3-A3,5-D3
4IN1
B 1/5 B 2/5 B 3/5 B 5/5
1-A1,2-C1,3-A3,5-D3
SYSCOM
SYSCOM
DVD SUB MICRO-P
V+5SUB
L4001
QTL1013
C4005
0.1u/16
C4004
100u/10
C4006
0.1u/16
GNDD
R4004
100
Q4011
2SK2034
R4016
47k
R4003
1k
HPLUG40
D4001
STBY
CEC40
CEC_5
FROM HDMI
HOTPLUG
ADCMCKO
MCKO
C4101
0.1u/16
C4102
0.1u/16
DVD SUB
MICRO-P
IC4001
PDC177A8
LC87F5932AU
Data_Sub_to_Sys
Data_Sys_to_Sub
NC
GND
VDD3
DBGP2
DBGP1
DBGP0
CEC
HOTPLUG
RXD1(NC)
TXD1(NC)
VDD2
ACK
SCL
SDA
XRDY_Sys_to_Sub
CLK_Sub_to_Sys
SUB_INT
XTRESET
CF1
CF2
VDD1
P_UPDATE
C4003
0.1u/16
R4002 100
R4001
100
C4001
22p/50
C4002
22p/50
R4015
10k
R4005
10k
R4006
10k
SUB_SCL40b
SUB_SDA40b
SUB_SDA40a
SUB_SCL40a
S10
Q4031
UM6K1N
D2 S2 G G2 S D
SUB_SDA
SUB_SCL
ADCBCKO
BCKO
LRCKO
FDTO
SDTO
CDTO
DAUX
BDTO
XMMK
XMBK
XMLK
XMFD
R4031
10
CN4001
VKN1374-
For DOWNLOAD
DBGP2
DBGP1
DBGP0
XDBG_RST
GND
R4007
100k
R4008
100
DVDSUBXRST40
CF2_40
CF1_40
R4009
470
R4012
0
R4011
1M
C4008
STBY
C4007
0.01u/25
SUB_INT40
R4010
3.3k
12M Hz
X4001
VSS1216-
CSTCE12MOG52-RO
R4013 100
R4014 100
S28
S33
B 1/5
SUB_CLK
SUB_DATA
B 1/5
SDATA
1-B5
V+3
C4022
STBY
R4023
STBY
VE+3V
Q4021
UM6K1N
STBY
C4021
STBY
V+6R8
IC4
AEK7
CEC
HOTPLUG
SUB_INT
V+5XM

NOTES

All Capacitors are in p-pF or uF
unless otherwise specified
Ratings : Capacity(uF)/Voltage(V)
Rated Voltage : 50V unless
otherwise specified

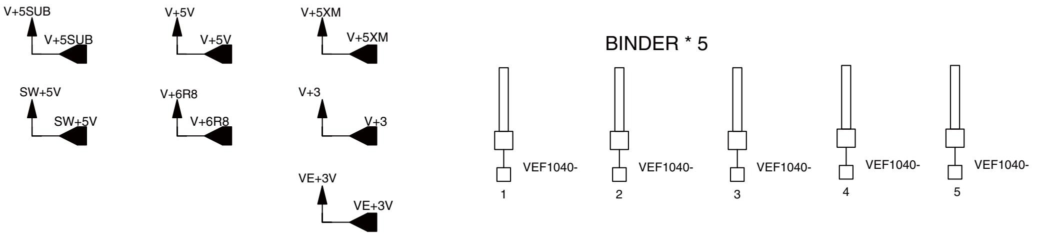
CH : CCSRCH(1608size)
(others : CKSRYB(1608size))

AL : CEAL

All Resistors are in k-kΩ, M-MΩor Ω

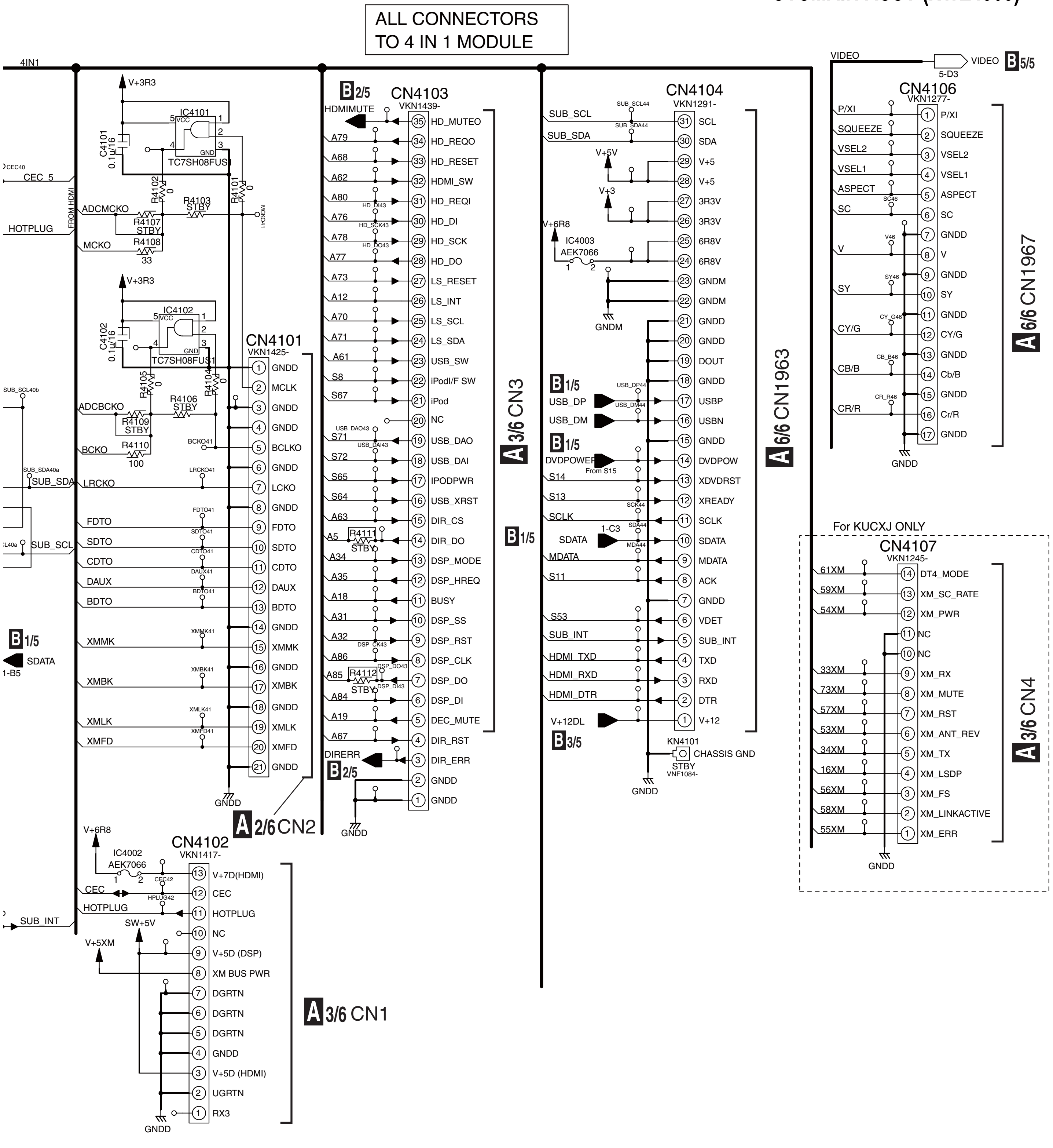
RS1/16S***J(1608size)
RS1/16S***F(1608size)

All Inductors are in uH


V+5SUB
V+5SUB
V+5V
V+5V
V+5XM
V+5XM
SW+5V
SW+5V
V+6R8
V+6R8
V+3
V+3
VE+3V
VE+3V
BINDER * 5
VEF1040-
1
VEF1040-
2
VEF1040-
3
VEF1040-
4
VEF1040-
5

CAUTION : FOR CONTINUED PROTECTION
AGAINST RISK OF FIRE.
REPLACE ONLY WITH SAME
TYPE NO. AEK7066 MFD, BY
LITTELFUSE INK. FOR IC4003.

B 4/5 AHTS KU SYSMAIN ASSY (XWZ4363)

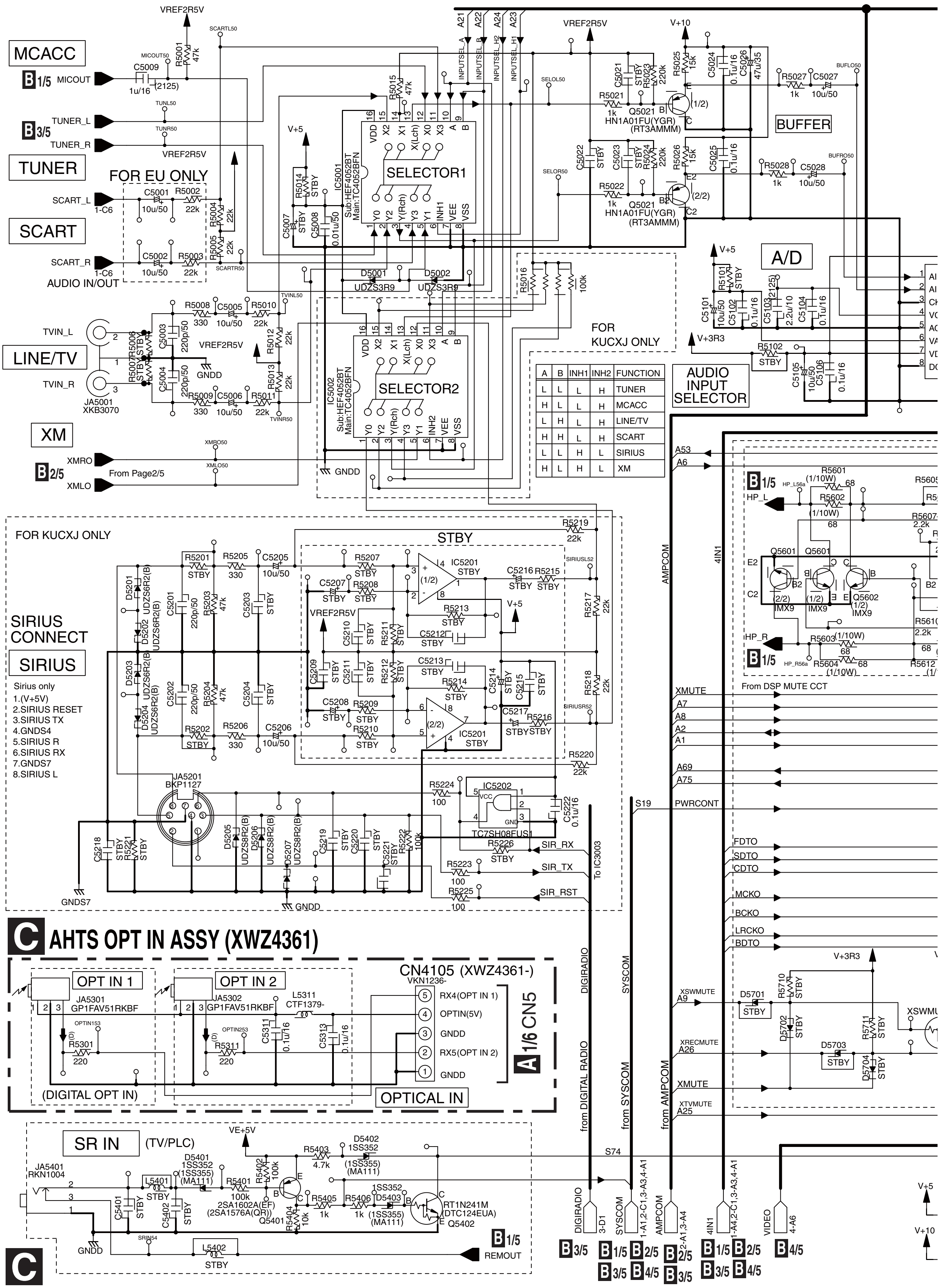


ALL CONNECTORS TO 4 IN 1 MODULE
4IN1
V+3R3
IC4101
TC7SH08FUS
C4101 0.1u/16
CEC40
CEC_5
R4102 0
R4101 0
R4103 STBY
R4107 STBY
R4108 33
FROM HDMI
ADCMCKO
HOTPLUG
MCKO
MCKO41
IC4102
TC7SH08FUS1
C4102 0.1u/16
R4105 0
R4104 0
R4106 STBY
R4109 STBY
R4110 100
SUB_SCL40b
ADCBCKO
BCKO
BCKO41
SUB_SDA40a
SUB_SDA
LRCKO
LRCKO41
FDTO
SDTO
CDTO
DAUX
BDTO
XMMK
XMBK
XMLK
XMFD
SUB_SCL
B 1/5
SDATA
1-B5
CN4101
VKN1425-
1 GNDD
2 MCLK
3 GNDD
4 GNDD
5 BCLKO
6 GNDD
7 LCKO
8 GNDD
9 FDTO
10 SDTO
11 CDTO
12 DAUX
13 BDTO
14 GNDD
15 XMMK
16 GNDD
17 XMBK
18 GNDD
19 XMLK
20 XMFD
21 GNDD
GNDD
A 2/6 CN2
B 2/5
HDMIMUTE
CN4103
VKN1439-
35 HD_MUTEO
34 HD_REQO
33 HD_RESET
32 HDMI_SW
31 HD_REQI
30 HD_DI
29 HD_SCK
28 HD_DO
27 LS_RESET
26 LS_INT
25 LS_SCL
24 LS_SDA
23 USB_SW
22 iPodI/F SW
21 iPod
20 NC
19 USB_DAO
18 USB_DAI
17 IPODPWR
16 USB_XRST
15 DIR_CS
14 DIR_DO
13 DSP_MODE
12 DSP_HREQ
11 BUSY
10 DSP_SS
9 DSP_RST
8 DSP_CLK
7 DSP_DO
6 DSP_DI
5 DEC_MUTE
4 DIR_RST
3 DIR_ERR
2 GNDD
1 GNDD
A79 A68 A62 A80 A76 A78 A77 A73 A12 A70 A71 A61 S8 S67 S71 S72 S65 S64 A63 A5 A34 A35 A18 A31 A32 A86 A85 A84 A19 A67
R4111 STBY
R4112 STBY
DIRERR
B 2/5
GNDD
A 3/6 CN3
CN4104
VKN1291-
31 SCL
30 SDA
29 V+5
28 V+5
27 3R3V
26 3R3V
25 6R8V
24 6R8V
23 GNDM
22 GNDM
21 GNDD
20 GNDD
19 DOUT
18 GNDD
17 USBP
16 USBN
15 GNDD
14 DVDPOW
13 XDVDRST
12 XREADY
11 SCLK
10 SDATA
9 MDATA
8 ACK
7 GNDD
6 VDET
5 SUB_INT
4 TXD
3 RXD
2 DTR
1 V+12
SUB_SCL
SUB_SDA
V+5V
V+3
V+6R8
IC4003
AEK7066
GNDM
B 1/5
USB_DP
USB_DM
B 1/5
DVDPOWER
From S15
S14
S13
SCLK
1-C3
B 1/5
SDATA
MDATA
S11
S53
SUB_INT
HDMI_TXD
HDMI_RXD
HDMI_DTR
V+12DL
B 3/5
KN4101
CHASSIS GND
STBY
VNF1084-
GNDD
A 6/6 CN1963
VIDEO
VIDEO
B 5/5
5-D3
CN4106
VKN1277-
1 P/XI
2 SQUEEZE
3 VSEL2
4 VSEL1
5 ASPECT
6 SC
7 GNDD
8 V
9 GNDD
10 SY
11 GNDD
12 CY/G
13 GNDD
14 Cb/B
15 GNDD
16 Cr/R
17 GNDD
P/XI
SQUEEZE
VSEL2
VSEL1
ASPECT
SC
V
SY
CY/G
CB/B
CR/R
GNDD
A 6/6 CN1967
For KUCXJ ONLY
CN4107
VKN1245-
14 DT4_MODE
13 XM_SC_RATE
12 XM_PWR
11 NC
10 NC
9 XM_RX
8 XM_MUTE
7 XM_RST
6 XM_ANT_REV
5 XM_TX
4 XM_LSDP
3 XM_FS
2 XM_LINKACTIVE
1 XM_ERR
61XM 59XM 54XM 33XM 73XM 57XM 53XM 34XM 16XM 56XM 58XM 55XM
GNDD
A 3/6 CN4
V+6R8
IC4002
AEK7066
CN4102
VKN1417-
13 V+7D(HDMI)
12 CEC
11 HOTPLUG
10 NC
9 V+5D (DSP)
8 XM BUS PWR
7 DGRTN
6 DGRTN
5 DGRTN
4 GNDD
3 V+5D (HDMI)
2 UGRTN
1 RX3
CEC
HOTPLUG
SUB_INT
SW+5V
V+5XM
GNDD
A 3/6 CN1

CAUTION : FOR CONTINUED PROTECTION
AGAINST RISK OF FIRE.
REPLACE ONLY WITH SAME
TYPE NO. AEK7066 MFD, BY
LITTELFUSE INK. FOR IC4002.

B 4/5

10.11 AHTS KU SYSMAIN (5/5) and AHTS OPT IN ASSYS


MCACC
B 1/5 MICOUT
B 3/5 TUNER_L
TUNER_R
TUNER
FOR EU ONLY
SCART_L
SCART_R
SCART
AUDIO IN/OUT
TVIN_L
TVIN_R
LINE/TV
JA5001 XKB3070
XM
B 2/5 XMRO XMLO
From Page2/5
VREF2R5V
SELECTOR1
IC5001 Sub:HEF4052BT Main:TC4052BFN
SELECTOR2
IC5002 Sub:HEF4052BT Main:TC4052BFN
D5001 UDZS3R9
D5002 UDZS3R9
FOR KUCXJ ONLY
BUFFER
Q5021 HN1A01FU(YGR) (RT3AMMM)
A/D
AUDIO INPUT SELECTOR
V+5
V+3R3
V+10
A21 A22 A24 A23
INPUTSEL_A INPUTSEL_B INPUTSEL_H2 INPUTSEL_H1
FOR KUCXJ ONLY
STBY
SIRIUS CONNECT
SIRIUS
Sirius only
1.(V+5V)
2.SIRIUS RESET
3.SIRIUS TX
4.GNDS4
5.SIRIUS R
6.SIRIUS RX
7.GNDS7
8.SIRIUS L
JA5201 BKP1127
IC5201
IC5202 TC7SH08FUS1
SIR_RX
SIR_TX
SIR_RST
To IC3003
GNDS7
GNDD
C AHTS OPT IN ASSY (XWZ4361)
OPT IN 1
JA5301 GP1FAV51RKBF
OPT IN 2
JA5302 GP1FAV51RKBF
L5311 CTF1379-
CN4105 (XWZ4361-) VKN1236-
5 RX4(OPT IN 1)
4 OPTIN(5V)
3 GNDD
2 RX5(OPT IN 2)
1 GNDD
A 1/6 CN5
(DIGITAL OPT IN)
OPTICAL IN
SR IN (TV/PLC)
JA5401 RKN1004
VE+5V
Q5401 2SA1602A(EF) (2SA1576A(QR))
Q5402 RT1N241M (DTC124EUA)
B 1/5 REMOUT
A53 A6
B 1/5 HP_L
B 1/5 HP_R
Q5601 IMX9
Q5602 IMX9
AMPCOM
4IN1
From DSP MUTE CCT
XMUTE A7 A8 A2 A1 A69 A75
S19 PWRCONT
FDTO SDTO CDTO MCKO BCKO LRCKO BDTO
XSWMUTE A9
XRECMUTE A26
XMUTE
XTVMUTE A25
D5701 D5702 D5703 D5704
DIGIRADIO
SYSCOM
from DIGITAL RADIO
from SYSCOM
from AMPCOM
S74
DIGIRADIO 3-D1
SYSCOM 1-A1,2-C1,3-A3,4-A1
AMPCOM 2-A1,3-A4
4IN1 1-A4,2-C1,3-A3,4-A1
VIDEO 4-A6
B 3/5
B 1/5 B 2/5 B 3/5 B 4/5
B 2/5 B 3/5
B 1/5 B 2/5 B 3/5 B 4/5
B 4/5

A	B	INH1	INH2	FUNCTION
L	L	L	H	TUNER
H	L	L	H	MCACC
L	H	L	H	LINE/TV
H	H	L	H	SCART
L	L	H	L	SIRIUS
H	L	H	L	XM

B 5/5 C

B 5/5 AHTS KU
SYSMAIN ASSY (XWZ4363)

NOTES

All Capacitors are in p-pF or uF
unless otherwise specified
Ratings : Capacity(uF)/Voltage(V)
Rated Voltage : 50V unless
otherwise specified

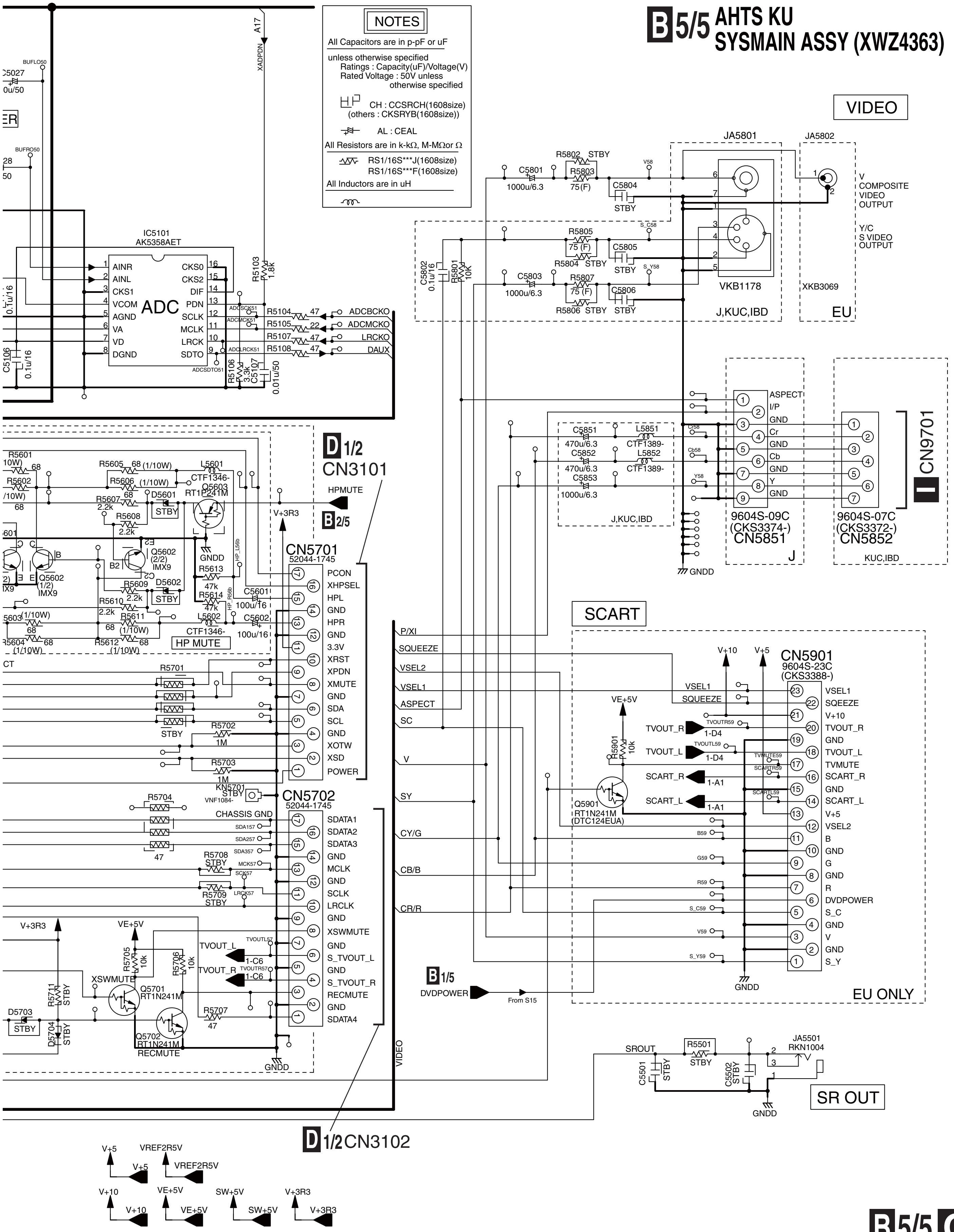
CH : CCSRCH(1608size)
(others : CKSRYB(1608size))

AL : CEAL

All Resistors are in k-kΩ, M-MΩor Ω

RS1/16S***J(1608size)
RS1/16S***F(1608size)

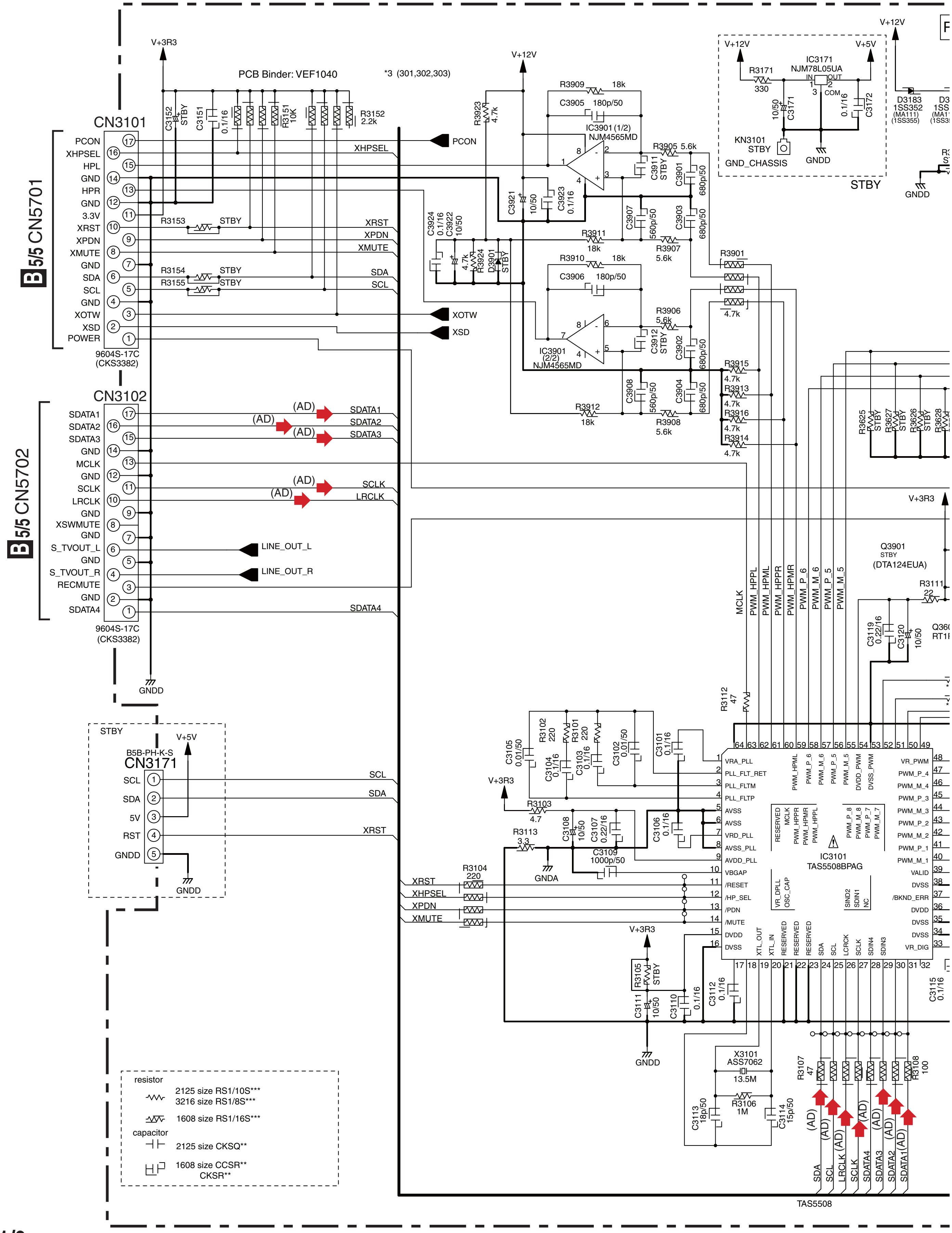
All Inductors are in uH



A17
XADPDN
BUFLO50
C5027
0u/50
BUFRO50
28
50
IC5101
AK5358AET
ADC
1 AINR
2 AINL
3 CKS1
4 VCOM
5 AGND
6 VA
7 VD
8 DGND
16 CKS0
15 CKS2
14 DIF
13 PDN
12 SCLK
11 MCLK
10 LRCK
9 SDTO
R5103 1.8k
ADCSCK51
ADCMCK51
ADCLRCK51
ADCSDTO51
R5104 47
R5105 22
R5107 47
R5108 47
ADCBCKO
ADCMCKO
LRCKO
DAUX
R5106 3.3k
C5107 0.01u/50
0.1u/16
C5106 0.1u/16
VIDEO
JA5801
JA5802
R5802 STBY
R5803 75(F)
C5801 1000u/6.3
V58
C5804 STBY
S_C58
R5805 75 (F)
R5804 STBY
C5805 STBY
S_Y58
C5802 0.1u/16
R5801 10K
C5803 1000u/6.3
R5807 75 (F)
R5806 STBY
C5806 STBY
VKB1178
J,KUC,IBD
XKB3069
EU
V COMPOSITE VIDEO OUTPUT
Y/C S VIDEO OUTPUT
C5851 470u/6.3
L5851 CTF1389-
C5852 470u/6.3
L5852 CTF1389-
C5853 1000u/6.3
Cr58
Cb58
Y58
J,KUC,IBD
ASPECT
I/P
GND
Cr
GND
Cb
GND
Y
GND
9604S-09C (CKS3374-) CN5851
J
9604S-07C (CKS3372-) CN5852
KUC,IBD
I CN9701
GNDD
D 1/2 CN3101
HPMUTE
B 2/5
V+3R3
R5601 10W) 68
R5602 /10W) 68
R5605 68 (1/10W)
R5606 (1/10W) 68
L5601 CTF1346-
Q5603 RT1P241M
R5607 2.2k
D5601 STBY
R5608 2.2k
Q5602 (2/2) IMX9
Q5602 (1/2) IMX9
GNDD
R5613 47k
R5614 47k
HP_L56b
HP_R56b
R5609 2.2k
D5602 STBY
R5610 2.2k
C5601 100u/16
R5603 (1/10W) 68
R5611 (1/10W) 68
L5602 CTF1346-
C5602 100u/16
R5604 68 (1/10W)
R5612 68 (1/10W)
HP MUTE
CN5701 52044-1745
PCON
XHPSEL
HPL
GND
HPR
GND
3.3V
XRST
XPDN
XMUTE
GND
SDA
SCL
GND
XOTW
XSD
POWER
R5701
STBY
R5702 1M
R5703 1M
KN5701 STBY VNF1084-
CN5702 52044-1745
CHASSIS GND
R5704 47
SDATA1
SDATA2
SDATA3
GND
MCLK
GND
SCLK
LRCLK
GND
XSWMUTE
GND
S_TVOUT_L
GND
S_TVOUT_R
RECMUTE
GND
SDATA4
SDA157
SDA257
SDA357
MCK57
SCK57
LRCK57
R5708 STBY
R5709 STBY
TVOUTL57
TVOUTR57
TVOUT_L 1-C6
TVOUT_R 1-C6
V+3R3
VE+5V
R5705 10k
R5706 10k
XSWMUTE
Q5701 RT1N241M
R5711 STBY
D5703 STBY
D5704 STBY
Q5702 RT1N241M
RECMUTE
R5707 47
GNDD
P/XI
SQUEEZE
VSEL2
VSEL1
ASPECT
SC
V
SY
CY/G
CB/B
CR/R
VIDEO
SCART
V+10
V+5
CN5901 9604S-23C (CKS3388-)
VE+5V
VSEL1
SQUEEZE
TVOUTR59
TVOUTL59
TVMUTE59
SCARTR59
SCARTL59
TVOUT_R 1-D4
TVOUT_L 1-D4
SCART_R 1-A1
SCART_L 1-A1
R5901 10k
Q5901 RT1N241M (DTC124EUA)
B59
G59
R59
S_C59
V59
S_Y59
VSEL1
SQEEZE
V+10
TVOUT_R
GND
TVOUT_L
TVMUTE
SCART_R
GND
SCART_L
V+5
VSEL2
B
GND
G
GND
R
DVDPOWER
S_C
GND
V
GND
S_Y
GNDD
EU ONLY
B 1/5
DVDPOWER
From S15
SROUT
R5501 STBY
C5501 STBY
C5502 STBY
JA5501 RKN1004
GNDD
SR OUT
D 1/2 CN3102
V+5
VREF2R5V
V+10
VE+5V
SW+5V
V+3R3

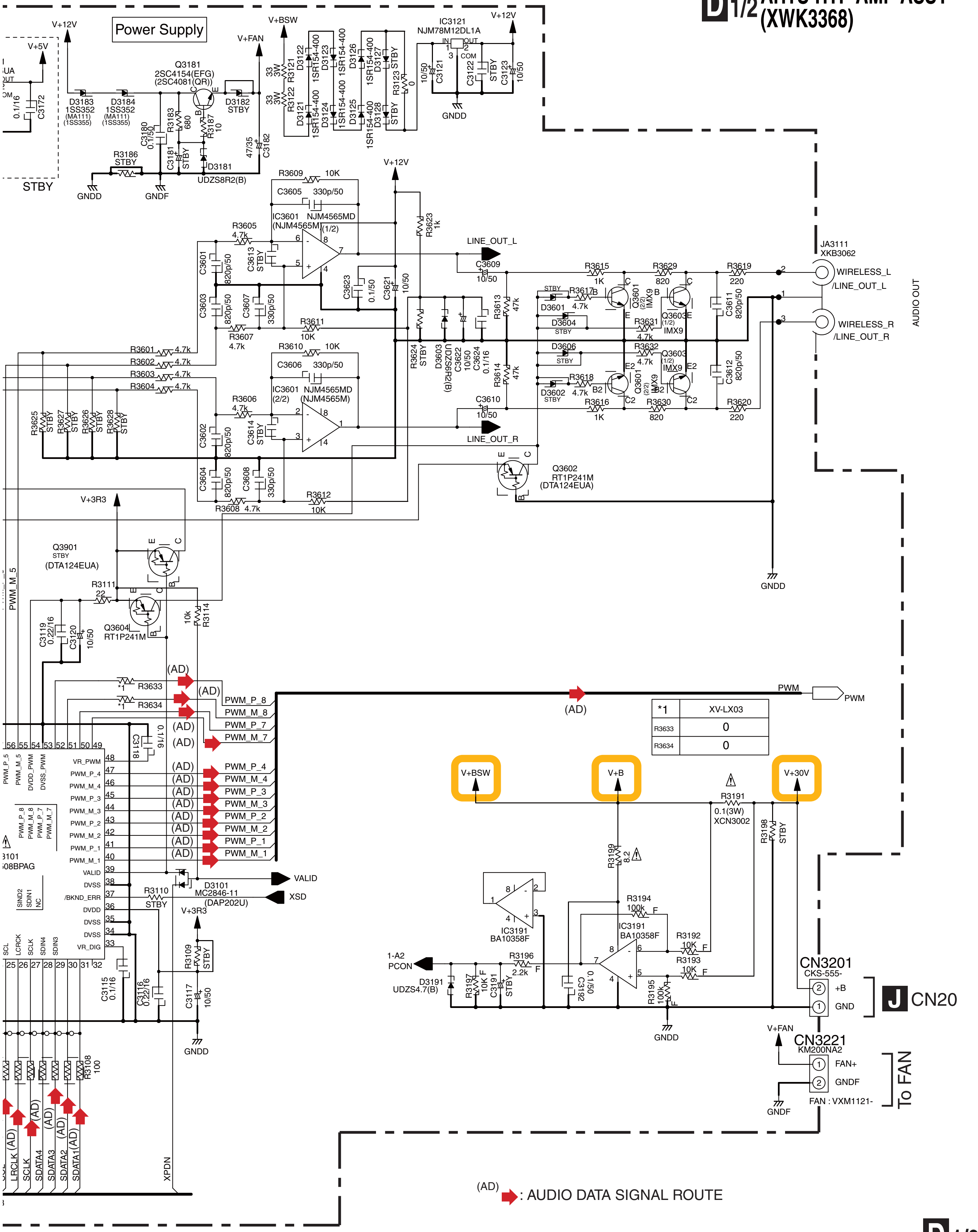
B 5/5 C

10.12 AHTS-HTP AMP ASSY (1/2)



V+3R3
PCB Binder: VEF1040
*3 (301,302,303)
V+12V
V+5V
IC3171
NJM78L05UA
R3171
330
IN
OUT
COM
C3171
10/50
C3172
0.1/16
KN3101
STBY
GND_CHASSIS
GNDD
D3183
1SS352
(MA111)
(1SS355)
CN3101
B 5/5 CN5701
PCON
XHPSEL
HPL
GND
HPR
3.3V
XRST
XPDN
XMUTE
SDA
SCL
XOTW
XSD
POWER
9604S-17C
(CKS3382)
C3152
C3151
0.1/16
R3151
10K
R3152
2.2k
R3153
R3154
R3155
STBY
R3923
4.7k
R3909
18k
C3905
180p/50
IC3901 (1/2)
NJM4565MD
R3905 5.6k
C3911
C3901
680p/50
C3921
10/50
C3923
0.1/16
C3907
560p/50
C3903
680p/50
C3924
0.1/16
C3922
10/50
R3924
4.7k
D3901
R3911
18k
R3907
5.6k
R3910
18k
C3906
180p/50
R3906
5.6k
IC3901
(2/2)
NJM4565MD
C3912
C3902
680p/50
C3908
560p/50
C3904
680p/50
R3912
18k
R3908
5.6k
R3901
4.7k
R3915
4.7k
R3913
4.7k
R3916
4.7k
R3914
4.7k
R3625
R3627
R3626
R3628
CN3102
B 5/5 CN5702
SDATA1
SDATA2
SDATA3
MCLK
SCLK
LRCLK
XSWMUTE
S_TVOUT_L
S_TVOUT_R
RECMUTE
SDATA4
(AD)
LINE_OUT_L
LINE_OUT_R
MCLK
PWM_HPPL
PWM_HPML
PWM_HPPR
PWM_HPMR
PWM_P_6
PWM_M_6
PWM_P_5
PWM_M_5
Q3901
STBY
(DTA124EUA)
R3111
22
C3119
0.22/16
C3120
10/50
R3112
47
STBY
B5B-PH-K-S
CN3171
5V
RST
GNDD
C3105
0.01/50
R3102
220
R3101
220
C3104
0.1/16
C3103
0.1/16
C3102
0.01/50
C3101
0.1/16
R3103
4.7
R3113
3.3
C3108
10/50
C3107
0.22/16
C3106
0.1/16
C3109
1000p/50
GNDA
R3104
220
VRA_PLL
PLL_FLT_RET
PLL_FLTM
PLL_FLTP
AVSS
VRD_PLL
AVSS_PLL
AVDD_PLL
VBGAP
/RESET
/HP_SEL
/PDN
/MUTE
DVDD
DVSS
IC3101
TAS5508BPAG
VR_PWM
PWM_P_4
PWM_M_4
PWM_P_3
PWM_M_3
PWM_P_2
PWM_M_2
PWM_P_1
PWM_M_1
VALID
/BKND_ERR
VR_DIG
RESERVED
PWM_P_8
PWM_M_8
PWM_P_7
PWM_M_7
DVDD_PWM
DVSS_PWM
VR_DPLL
OSC_CAP
SIND2
SDIN1
NC
XTL_OUT
XTL_IN
LRCK
SDIN4
SDIN3
R3105
C3111
10/50
C3110
0.1/16
C3112
0.1/16
C3115
0.1/16
X3101
ASS7062
13.5M
R3106
1M
C3113
18p/50
C3114
15p/50
R3107
47
R3108
100
TAS5508
resistor
2125 size RS1/10S***
3216 size RS1/8S***
1608 size RS1/16S***
capacitor
2125 size CKSQ**
1608 size CCSR**
CKSR**

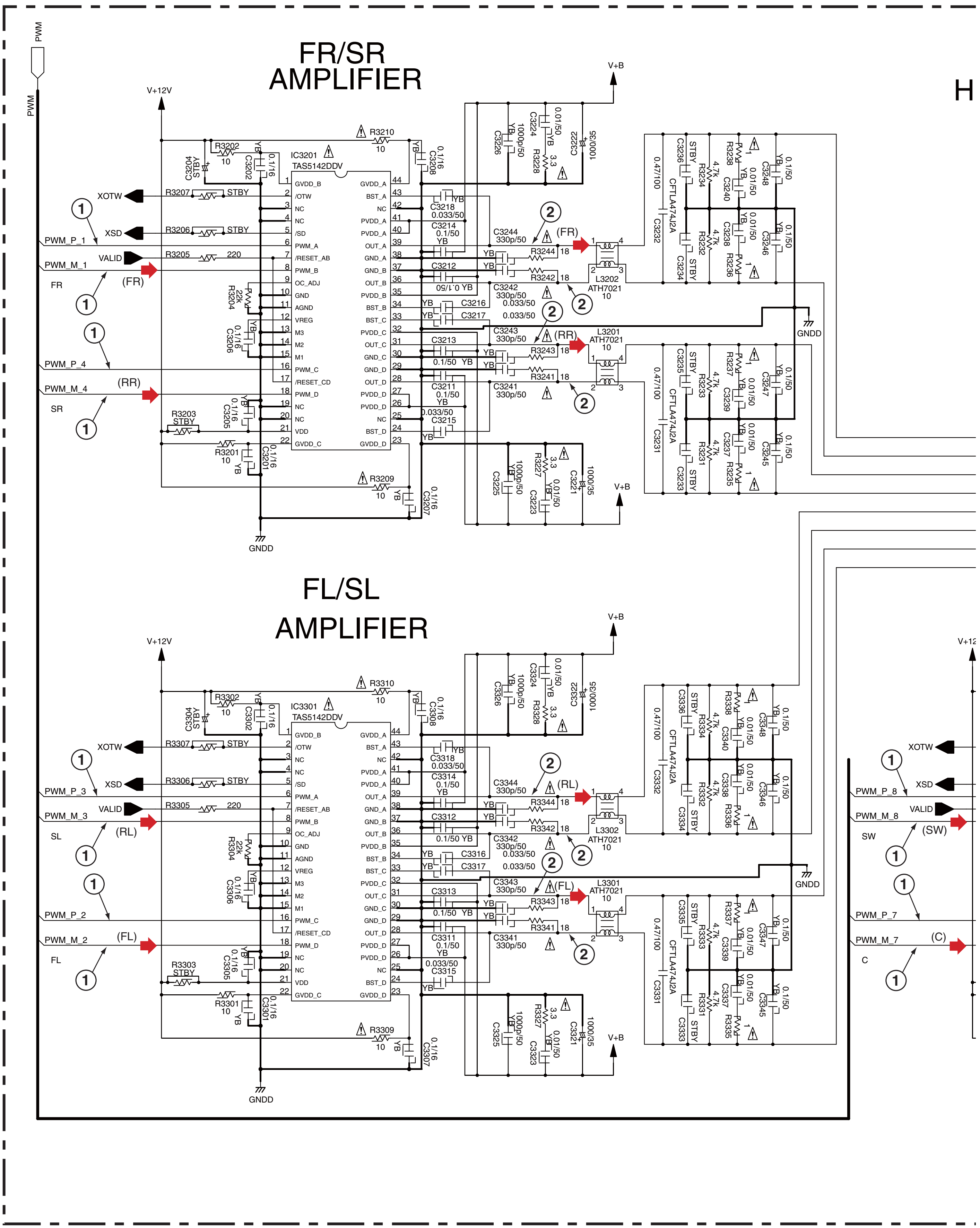
D 1/2 AHTS-HTP AMP ASSY (XWK3368)


A
B
C
D
E
F
Power Supply
V+12V
V+5V
STBY
0.1/16
C3172
D3183 1SS352 (MA111) (1SS355)
D3184 1SS352 (MA111) (1SS355)
Q3181 2SC4154(EFG) (2SC4081(QR))
R3186 STBY
GNDD
GNDF
C3180 0.1/50
R3183 680
R3187 10
C3181 STBY
D3181 UDZS8R2(B)
D3182 STBY
47/35 C3182
V+FAN
V+BSW
33 3W R3121
33 3W R3122
D3121 1SR154-400
D3122 1SR154-400
D3123 1SR154-400
D3124 1SR154-400
D3125 1SR154-400
D3126 1SR154-400
D3127 1SR154-400
D3128 1SR154-400
STBY R3123 0
IC3121 NJM78M12DL1A
IN OUT COM
10/50 C3121
C3122 STBY
C3123 10/50
GNDD
R3609 10K
C3605 330p/50
IC3601 NJM4565MD (NJM4565M) (1/2)
R3605 4.7k
C3601 820p/50
C3613 STBY
R3623 1k
LINE_OUT_L
C3609 10/50
C3623 0.1/50
C3621 10/50
C3603 820p/50
C3607 330p/50
R3611 10K
R3607 4.7k
R3601 4.7k
R3602 4.7k
R3603 4.7k
R3604 4.7k
R3610 10K
C3606 330p/50
IC3601 NJM4565MD (2/2) (NJM4565M)
R3606 4.7k
C3614 STBY
C3602 820p/50
LINE_OUT_R
C3610 10/50
C3604 820p/50
C3608 330p/50
R3608 4.7k
R3612 10K
R3625 STBY
R3627 STBY
R3626 STBY
R3628 STBY
R3624 STBY
D3603 UDZS6R2(B)
C3622 10/50
C3624 0.1/16
R3613 47k
R3614 47k
R3615 1K
R3629 820
R3619 220
R3617 4.7k
D3601 STBY
Q3601 IMX9 (2/2)
Q3603 IMX9 (1/2)
D3604 STBY
R3631 4.7k
D3606 STBY
R3632 4.7k
Q3603 (1/2) IMX9
R3618 4.7k
D3602 STBY
Q3601 IMX9 (2/2)
R3616 1K
R3630 820
R3620 220
C3611 820p/50
C3612 820p/50
JA3111 XKB3062
WIRELESS_L /LINE_OUT_L
WIRELESS_R /LINE_OUT_R
AUDIO OUT
Q3602 RT1P241M (DTA124EUA)
GNDD
V+3R3
Q3901 STBY (DTA124EUA)
R3111 22
Q3604 RT1P241M
C3119 0.22/16
C3120 10/50
10k R3114
PWM_M_5
R3633 *1
R3634 *1
(AD)
C3118 0.1/16
PWM_P_8
PWM_M_8
PWM_P_7
PWM_M_7
PWM_P_4
PWM_M_4
PWM_P_3
PWM_M_3
PWM_P_2
PWM_M_2
PWM_P_1
PWM_M_1
VR_PWM
VALID
DVSS
/BKND_ERR
DVDD
VR_DIG
PWM_P_5 PWM_M_5 DVDD_PWM DVSS_PWM
SIND2 SDIN1 NC
SCL LRCLK SCLK SDIN4 SDIN3
3101 508BPAG
R3110 STBY
D3101 MC2846-11 (DAP202U)
VALID
XSD
V+3R3
R3109 STBY
C3115 0.1/16
C3116 0.22/16
C3117 10/50
GNDD
R3108 100
LRCLK SCLK SDATA4 SDATA3 SDATA2 SDATA1
XPDN
PWM
*1 XV-LX03
R3633 0
R3634 0
V+BSW
V+B
V+30V
R3191 0.1(3W) XCN3002
R3198 STBY
R3199 8.2
IC3191 BA10358F
R3194 100k F
IC3191 BA10358F
R3192 10K F
R3193 10K F
R3195 100k F
1-A2 PCON
D3191 UDZS4.7(B)
R3197 10K F
C3191 STBY
R3196 2.2k F
C3192 0.1/50
GNDD
CN3201 CKS-555-
+B
GND
J CN20
V+FAN
CN3221 KM200NA2
FAN+
GNDF
To FAN
FAN : VXM1121-

(AD) : AUDIO DATA SIGNAL ROUTE

D 1/2

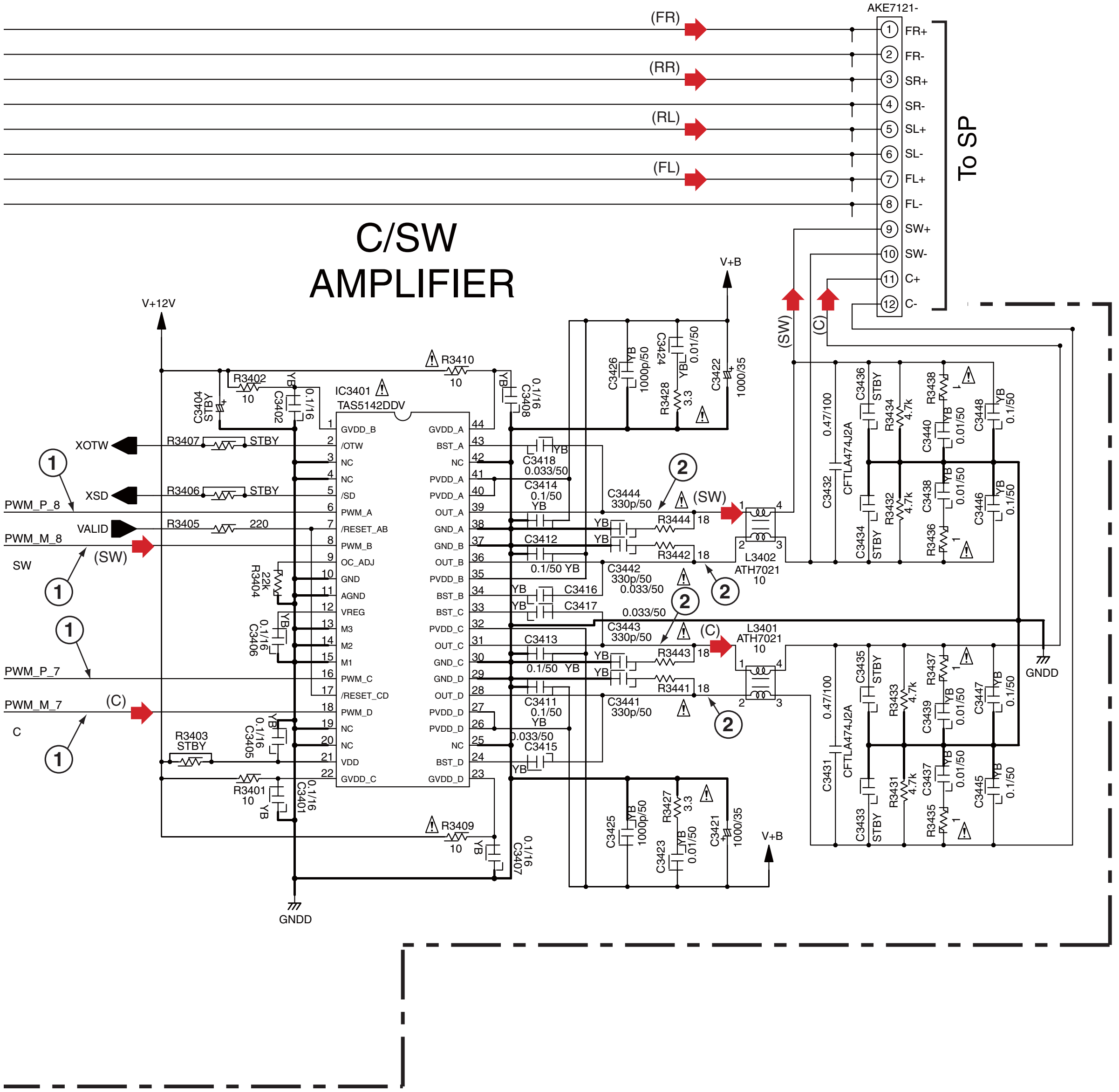
10.13 AHTS-HTP AMP ASSY (2/2)


A
B
C
D
E
F
H
PWM
FR/SR AMPLIFIER
FL/SL AMPLIFIER
V+12V
V+B
GNDD
IC3201
TAS5142DDV
IC3301
TAS5142DDV
GVDD_B
/OTW
NC
/SD
PWM_A
/RESET_AB
PWM_B
OC_ADJ
GND
AGND
VREG
M3
M2
M1
PWM_C
/RESET_CD
PWM_D
VDD
GVDD_C
GVDD_A
BST_A
PVDD_A
OUT_A
GND_A
GND_B
OUT_B
PVDD_B
BST_B
BST_C
PVDD_C
OUT_C
GND_C
GND_D
OUT_D
PVDD_D
BST_D
GVDD_D
XOTW
XSD
VALID
STBY
PWM_P_1
PWM_M_1
PWM_P_4
PWM_M_4
PWM_P_3
PWM_M_3
PWM_P_2
PWM_M_2
PWM_P_8
PWM_M_8
PWM_P_7
PWM_M_7
FR
SR
SL
FL
SW
C
(FR)
(RR)
(RL)
(FL)
(SW)
(C)
①
②
R3202 10
R3207
R3206
R3205 220
R3204 22k
R3203
R3201 10
R3210 10
R3209 10
C3204
C3202 0.1/16
C3206 0.1/16
C3205 0.1/16
C3201 0.1/16
C3208 0.1/16
C3207 0.1/16
C3218 0.033/50
C3214 0.1/50
C3212
C3216
C3217 0.033/50
C3213
C3211 0.1/50
C3215 0.033/50
C3244 330p/50
C3242 330p/50
C3243 330p/50
C3241 330p/50
R3244 18
R3242 18
R3243 18
R3241 18
L3202 ATH7021 10
L3201 ATH7021 10
C3226
C3224 1000p/50
R3228 3.3
C3222 1000/35
C3225
C3227 3.3
C3223 0.01/50
C3221 1000/35
C3232 0.47/100
C3231 0.47/100
CFTLA474J2A
C3236
C3234
C3235
C3233
R3238
R3234 4.7k
R3232 4.7k
R3236
R3237
R3233 4.7k
R3231 4.7k
R3235
C3240 0.01/50
C3238 0.01/50
C3239 0.01/50
C3237 0.01/50
C3248 0.1/50
C3246 0.1/50
C3247 0.1/50
C3245 0.1/50
R3302 10
R3307
R3306
R3305 220
R3304 22k
R3303
R3301 10
R3310 10
R3309 10
C3304
C3302 0.1/16
C3306 0.1/16
C3305 0.1/16
C3301 0.1/16
C3308 0.1/16
C3307 0.1/16
C3318 0.033/50
C3314 0.1/50
C3312
C3316
C3317 0.033/50
C3313
C3311 0.1/50
C3315 0.033/50
C3344 330p/50
C3342 330p/50
C3343 330p/50
C3341 330p/50
R3344 18
R3342 18
R3343 18
R3341 18
L3302 ATH7021 10
L3301 ATH7021 10
C3326
C3324 1000p/50
R3328 3.3
C3322 1000/35
C3325
R3327 3.3
C3323 0.01/50
C3321 1000/35
C3332 0.47/100
C3331 0.47/100
C3336
C3334
C3335
C3333
R3338
R3334 4.7k
R3332 4.7k
R3336
R3337
R3333 4.7k
R3331 4.7k
R3335
C3340 0.01/50
C3338 0.01/50
C3339 0.01/50
C3337 0.01/50
C3348 0.1/50
C3346 0.1/50
C3347 0.1/50
C3345 0.1/50
YB

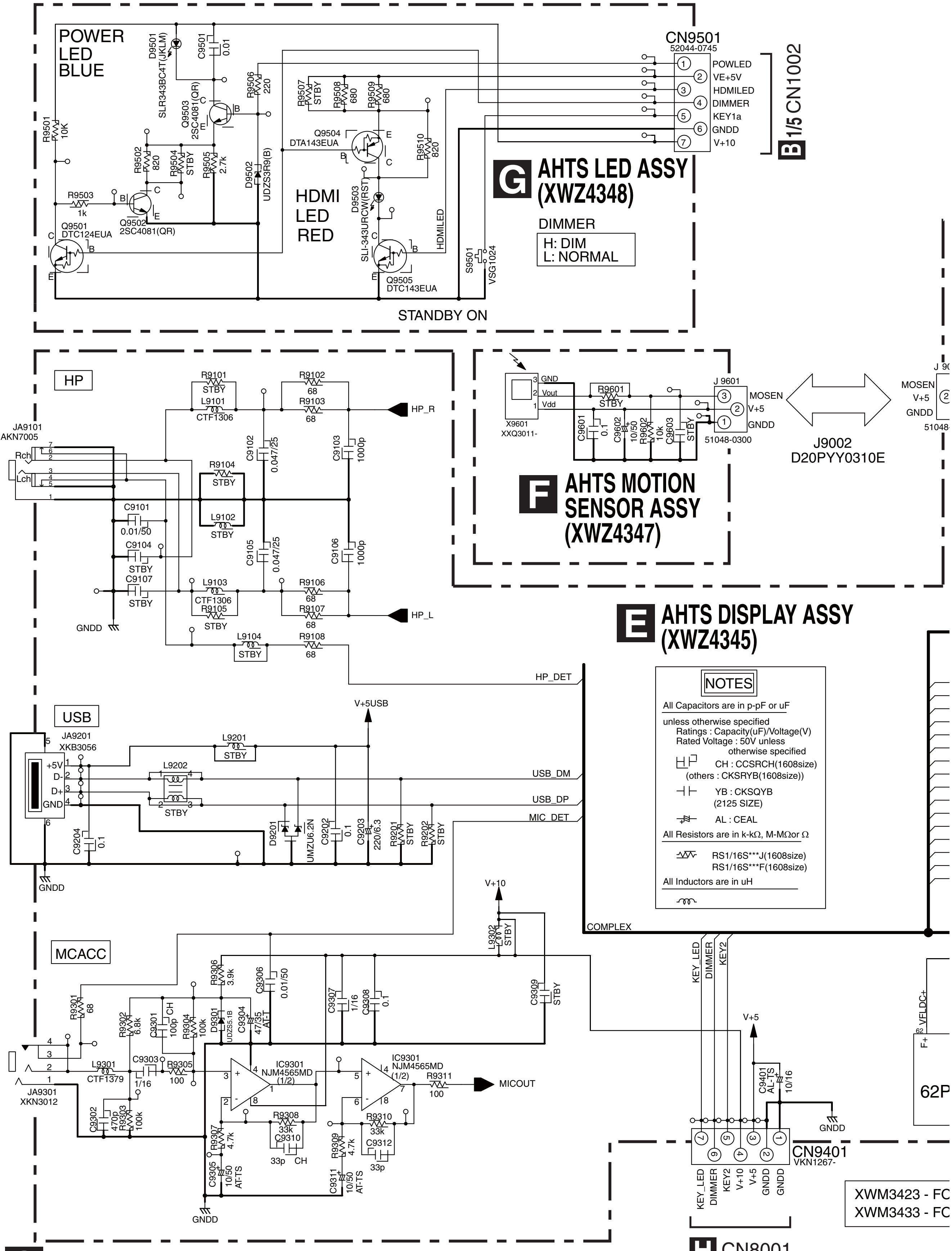
H-AMP ASSY (2/2)

Heatsink: ANH7190

(RL) ➡: AUDIO DATA SIGNAL ROUTE (Rear Lch)
(RR) ➡: AUDIO DATA SIGNAL ROUTE (Rear Rch)
(FL) ➡: AUDIO DATA SIGNAL ROUTE (Front Lch)
(FR) ➡: AUDIO DATA SIGNAL ROUTE (Front Rch)
(SW) ➡: AUDIO DATA SIGNAL ROUTE (Sub woofer ch)
(C) ➡: AUDIO DATA SIGNAL ROUTE (Center ch)


CN3211
AKE7121-
(FR)
(RR)
(RL)
(FL)
1 FR+
2 FR-
3 SR+
4 SR-
5 SL+
6 SL-
7 FL+
8 FL-
9 SW+
10 SW-
11 C+
12 C-
To SP
C/SW
AMPLIFIER
V+12V
V+B
(SW)
(C)
IC3401
TAS5142DDV
R3410 10
C3408 0.1/16 YB
R3402 10
C3402 0.1/16 YB
C3404 STBY
XOTW
R3407 STBY
XSD
R3406 STBY
PWM_P_8
R3405 220
VALID
PWM_M_8
SW
(SW)
R3404 22k
C3406 0.1/16 YB
PWM_P_7
PWM_M_7
(C)
C
R3403 STBY
C3405 0.1/16 YB
R3401 10
C3401 0.1/16 YB
R3409 10
C3407 0.1/16 YB
GNDD
1 GVDD_B
2 /OTW
3 NC
4 NC
5 /SD
6 PWM_A
7 /RESET_AB
8 PWM_B
9 OC_ADJ
10 GND
11 AGND
12 VREG
13 M3
14 M2
15 M1
16 PWM_C
17 /RESET_CD
18 PWM_D
19 NC
20 NC
21 VDD
22 GVDD_C
44 GVDD_A
43 BST_A
42 NC
41 PVDD_A
40 PVDD_A
39 OUT_A
38 GND_A
37 GND_B
36 OUT_B
35 PVDD_B
34 BST_B
33 BST_C
32 PVDD_C
31 OUT_C
30 GND_C
29 GND_D
28 OUT_D
27 PVDD_D
26 PVDD_D
25 NC
24 BST_D
23 GVDD_D
C3418 0.033/50 YB
C3414 0.1/50 YB
C3412 0.1/50 YB
C3416 YB
C3417 YB
0.033/50
C3413 0.1/50 YB
C3411 0.1/50 YB
C3415 0.033/50 YB
C3426 1000p/50 YB
C3424 0.01/50 YB
R3428 3.3
C3422 1000/35
C3425 1000p/50 YB
R3427 3.3
C3423 0.01/50 YB
C3421 1000/35
C3444 330p/50
C3442 330p/50
C3443 330p/50
C3441 330p/50
R3444 18
R3442 18
R3443 18
R3441 18
L3402 ATH7021 10
L3401 ATH7021 10
C3432 0.47/100
CFTLA474J2A
C3436 STBY
C3434 STBY
R3434 4.7k
R3432 4.7k
R3438
R3436
C3440 0.01/50 YB
C3438 0.01/50 YB
C3448 0.1/50 YB
C3446 0.1/50 YB
C3431 0.47/100
CFTLA474J2A
C3435 STBY
C3433 STBY
R3433 4.7k
R3431 4.7k
R3437
R3435
C3439 0.01/50 YB
C3437 0.01/50 YB
C3447 0.1/50 YB
C3445 0.1/50 YB
GNDD
1
2

10.14 AHTS DISPLAY, AHTS MOTION SENSOR and AHTS LED ASSYS



POWER LED BLUE
D9501 SLR343BC4T(JKLM)
C9501 0.01
R9501 10K
R9502 820
R9503 1k
R9504 STBY
R9505 2.7k
R9506 220
Q9501 DTC124EUA
Q9502 2SC4081(QR)
Q9503 2SC4081(QR)
D9502 UDZS3R9(B)
R9507 STBY
R9508 680
R9509 680
R9510 820
Q9504 DTA143EUA
HDMI LED RED
D9503 SLI-343URCW(RST)
Q9505 DTC143EUA
HDMILED
S9501 VSG1024
STANDBY ON
CN9501 52044-0745
1 POWLED
2 VE+5V
3 HDMILED
4 DIMMER
5 KEY1a
6 GNDD
7 V+10
B 1/5 CN1002
G AHTS LED ASSY (XWZ4348)
DIMMER
H: DIM
L: NORMAL
HP
JA9101 AKN7005
Rch
Lch
R9101 STBY
L9101 CTF1306
R9102 68
R9103 68
HP_R
C9102 0.047/25
C9103 1000p
R9104 STBY
L9102 STBY
C9101 0.01/50
C9104 STBY
C9107 STBY
C9105 0.047/25
C9106 1000p
L9103 CTF1306
R9105 STBY
R9106 68
R9107 68
HP_L
L9104 STBY
R9108 68
GNDD
HP_DET
X9601 XXQ3011-
3 GND
2 Vout
1 Vdd
R9601 STBY
C9601 0.1
C9602 10/50
R9602 10k
C9603 STBY
J 9601 51048-0300
3 MOSEN
2 V+5
1 GNDD
J9002 D20PYY0310E
MOSEN
V+5
GNDD
F AHTS MOTION SENSOR ASSY (XWZ4347)
E AHTS DISPLAY ASSY (XWZ4345)
USB
JA9201 XKB3056
+5V
D-
D+
GND
L9201 STBY
L9202 STBY
V+5USB
USB_DM
USB_DP
MIC_DET
C9204 0.1
D9201 UMZU6.2N
C9202 0.1
C9203 220/6.3
R9201 STBY
R9202 STBY
GNDD
COMPLEX
MCACC
V+10
L9302 STBY
R9301 68
R9302 6.8k
C9301 CH 100p
R9304 100k
D9301 UDZS5.1B
C9304 47/35 AT-T
R9306 3.9k
C9306 0.01/50
C9307 1/16
C9308 0.1
C9309 STBY
JA9301 XKN3012
L9301 CTF1379
C9303 1/16
R9305 100
IC9301 NJM4565MD (1/2)
R9311 100
MICOUT
C9302 470p
R9303 100k
R9307 4.7k
R9308 33k
C9310 33p CH
R9309 4.7k
R9310 33k
C9312 33p
C9305 10/50 AT-TS
C9311 10/50 AT-TS
GNDD
KEY_LED
DIMMER
KEY2
V+5
C9401 AL-TS 10/16
GNDD
CN9401 VKN1267-
KEY_LED
DIMMER
KEY2
V+10
V+5
GNDD
GNDD
H CN8001
VFLDC+
F+
62P
XWM3423 - FC
XWM3433 - FC

NOTES

All Capacitors are in p-pF or uF

unless otherwise specified
Ratings : Capacity(uF)/Voltage(V)
Rated Voltage : 50V unless otherwise specified

CH : CCSRCH(1608size)
(others : CKSRYB(1608size))

YB : CKSQYB
(2125 SIZE)

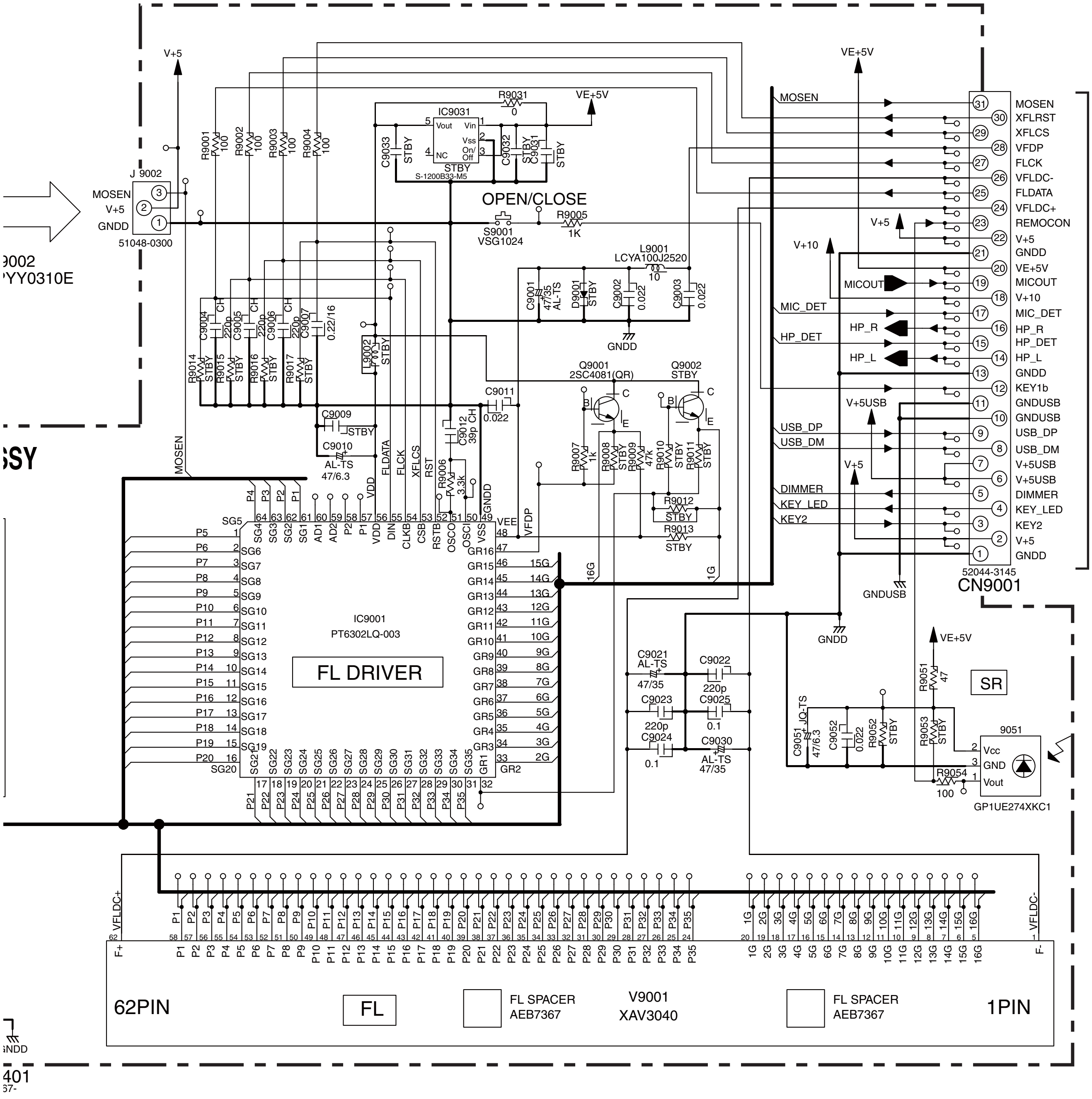
AL : CEAL

All Resistors are in k-kΩ, M-MΩor Ω

RS1/16S***J(1608size)
RS1/16S***F(1608size)

All Inductors are in uH

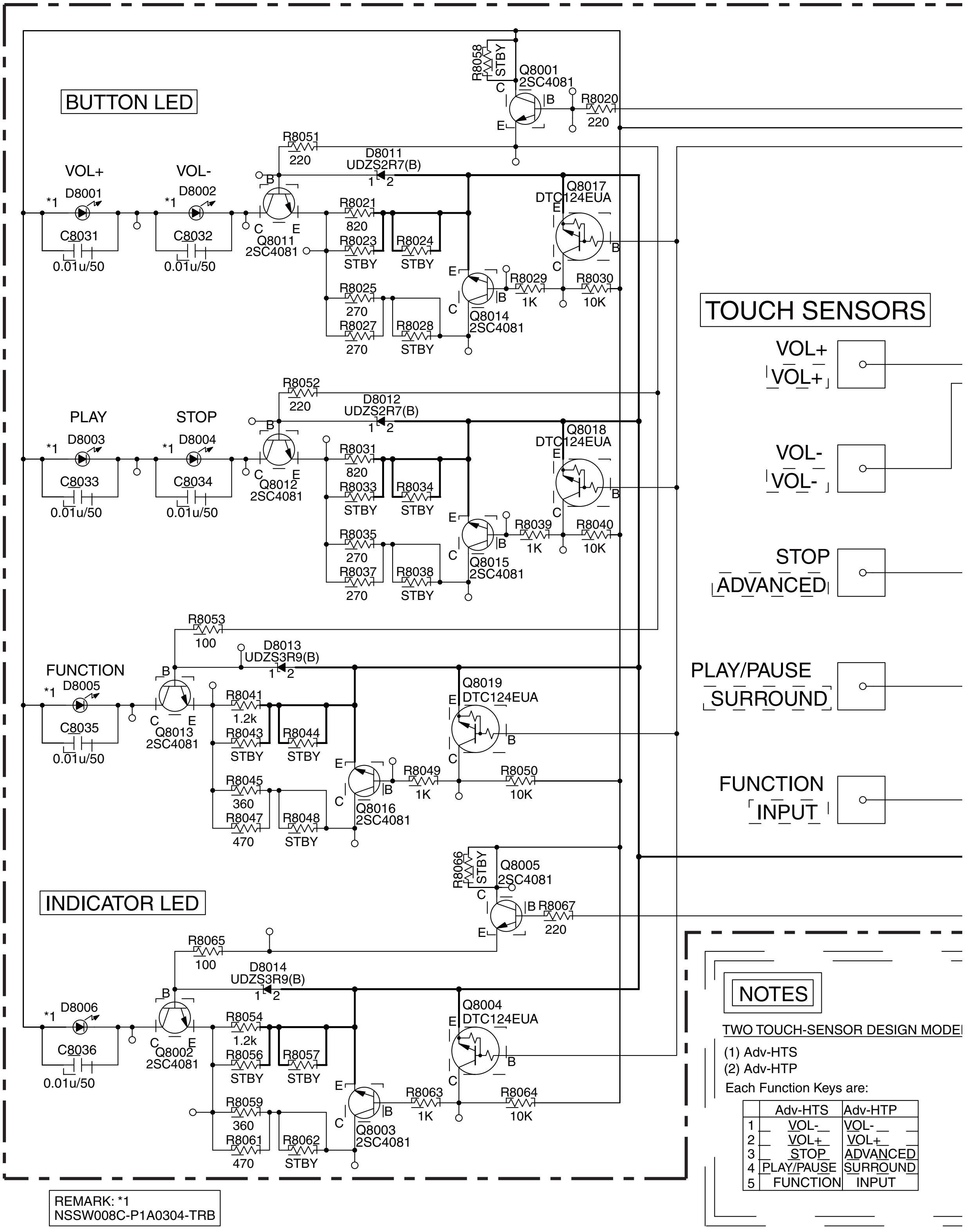
E F G


V+5
VE+5V
R9031
0
IC9031
Vout
Vin
Vss
NC
On/Off
S-1200B33-M5
C9033
C9032
C9031
STBY
R9001 100
R9002 100
R9003 100
R9004 100
J 9002
MOSEN
V+5
GNDD
51048-0300
9002
PYY0310E
OPEN/CLOSE
S9001
VSG1024
R9005
1K
L9001
LCYA100J2520
10
C9001
47/35
AL-TS
D9001
C9002
0.022
C9003
0.022
GNDD
C9004 CH 220p
C9005 CH 220p
C9006 CH 220p
C9007 0.22/16
R9014 STBY
R9015 STBY
R9016 STBY
R9017 STBY
L9002
STBY
C9009
STBY
C9010
AL-TS
47/6.3
C9011
0.022
C9012 39p CH
R9006
3.3k
Q9001
2SC4081(QR)
Q9002
STBY
R9007 1k
R9008 STBY
R9009 47k
R9010 STBY
R9011 STBY
R9012 STBY
R9013 STBY
SSY
MOSEN
FLDATA
FLCK
XFLCS
RST
VDD
GNDD
VFDP
VEE
IC9001
PT6302LQ-003
FL DRIVER
SG1–SG35
P1–P35
GR1–GR16
AD1
AD2
DIN
CLKB
CSB
RSTB
OSCO
OSCI
VSS
1G–16G
16G
1G
MOSEN
MIC_DET
HP_DET
USB_DP
USB_DM
DIMMER
KEY_LED
KEY2
VE+5V
V+5
V+10
MICOUT
HP_R
HP_L
V+5USB
GNDUSB
GNDD
31 MOSEN
30 XFLRST
29 XFLCS
28 VFDP
27 FLCK
26 VFLDC-
25 FLDATA
24 VFLDC+
23 REMOCON
22 V+5
21 GNDD
20 VE+5V
19 MICOUT
18 V+10
17 MIC_DET
16 HP_R
15 HP_DET
14 HP_L
13 GNDD
12 KEY1b
11 GNDUSB
10 GNDUSB
9 USB_DP
8 USB_DM
7 V+5USB
6 V+5USB
5 DIMMER
4 KEY_LED
3 KEY2
2 V+5
1 GNDD
52044-3145
CN9001
B 1/5 CN1003
C9021
AL-TS
47/35
C9022
220p
C9023
220p
C9025
0.1
C9024
0.1
C9030
AL-TS
47/35
C9051
JQ-TS
47/6.3
C9052
0.022
R9052
STBY
R9053
STBY
R9051
47
R9054
100
SR
9051
Vcc
GND
Vout
GP1UE274XKC1
VFLDC+
VFLDC-
F+
F-
62PIN
FL
FL SPACER
AEB7367
V9001
XAV3040
1PIN
GNDD
401
67-

XWM3423 - FOR HTS KUC/IBD
XWM3433 - FOR OTHERS

E F G

10.15 AHTS TOUCH SENSOR ASSY


BUTTON LED
R8058 STBY
Q8001 2SC4081
R8020 220
R8051 220
D8011 UDZS2R7(B)
VOL+
VOL-
*1 D8001
*1 D8002
C8031 0.01u/50
C8032 0.01u/50
Q8011 2SC4081
R8021 820
R8023 STBY
R8024 STBY
R8025 270
R8027 270
R8028 STBY
Q8017 DTC124EUA
R8029 1K
R8030 10K
Q8014 2SC4081
R8052 220
D8012 UDZS2R7(B)
PLAY
STOP
*1 D8003
*1 D8004
C8033 0.01u/50
C8034 0.01u/50
Q8012 2SC4081
R8031 820
R8033 STBY
R8034 STBY
R8035 270
R8037 270
R8038 STBY
Q8018 DTC124EUA
R8039 1K
R8040 10K
Q8015 2SC4081
R8053 100
D8013 UDZS3R9(B)
FUNCTION
*1 D8005
C8035 0.01u/50
Q8013 2SC4081
R8041 1.2k
R8043 STBY
R8044 STBY
R8045 360
R8047 470
R8048 STBY
Q8019 DTC124EUA
R8049 1K
R8050 10K
Q8016 2SC4081
R8066 STBY
Q8005 2SC4081
R8067 220
INDICATOR LED
R8065 100
D8014 UDZS3R9(B)
*1 D8006
C8036 0.01u/50
Q8002 2SC4081
R8054 1.2k
R8056 STBY
R8057 STBY
R8059 360
R8061 470
R8062 STBY
Q8004 DTC124EUA
R8063 1K
R8064 10K
Q8003 2SC4081
TOUCH SENSORS
VOL+
VOL+
VOL-
VOL-
STOP
ADVANCED
PLAY/PAUSE
SURROUND
FUNCTION
INPUT

NOTES

TWO TOUCH-SENSOR DESIGN MODEL

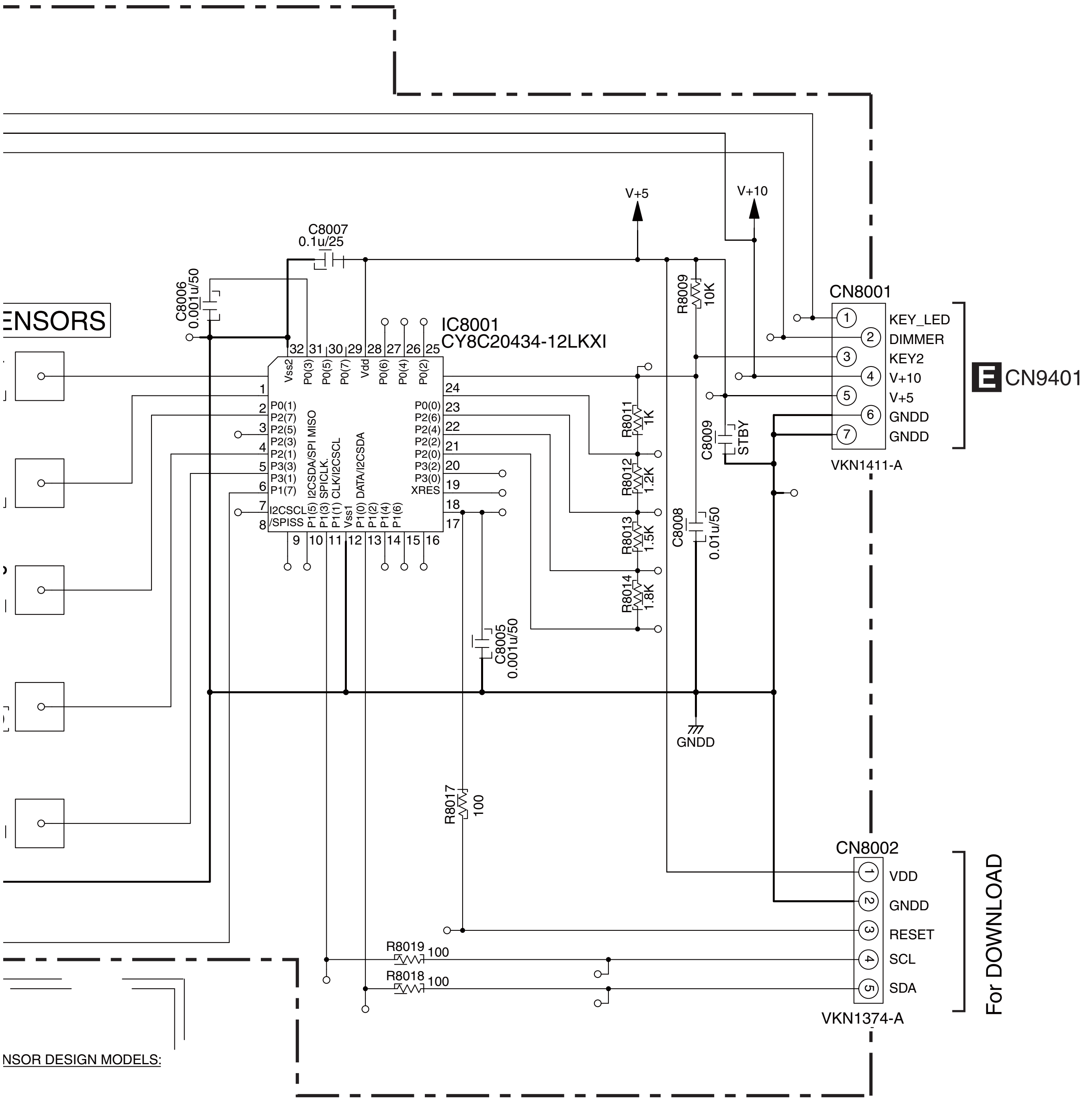
(1) Adv-HTS
(2) Adv-HTP

Each Function Keys are:

	Adv-HTS	Adv-HTP
1	VOL-	VOL-
2	VOL+	VOL+
3	STOP	ADVANCED
4	PLAY/PAUSE	SURROUND
5	FUNCTION	INPUT

REMARK: *1
NSSW008C-P1A0304-TRB

H AHTS TOUCH SENSOR ASSY
(XWM3422)

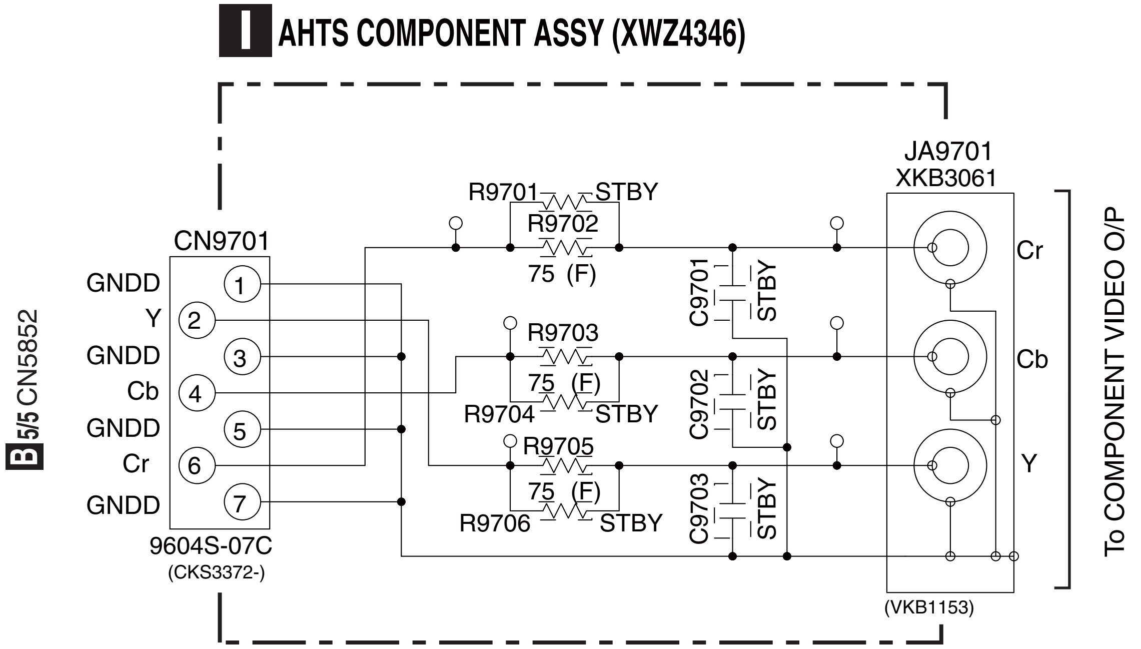

ENSORS
C8007
0.1u/25
C8006
0.001u/50
V+5
V+10
R8009
10K
IC8001
CY8C20434-12LKXI
32 31 30 29 28 27 26 25
Vss2
P0(3)
P0(5)
P0(7)
Vdd
P0(6)
P0(4)
P0(2)
1
2 P0(1)
P2(7)
3 P2(5)
4 P2(3)
P2(1)
5 P3(3)
6 P3(1)
P1(7)
7 I2CSCL
8 /SPISS
I2CSDA/SPI MISO
SPICLK.
CLK/I2CSCL
DATA/I2CSDA
P1(5)
P1(3)
P1(1)
Vss1
P1(0)
P1(2)
P1(4)
P1(6)
9 10 11 12 13 14 15 16
24 P0(0)
23 P2(6)
22 P2(4)
21 P2(2)
P2(0)
20 P3(2)
19 P3(0)
XRES
18
17
R8011
1K
R8012
1.2K
R8013
1.5K
R8014
1.8K
C8009
STBY
C8008
0.01u/50
C8005
0.001u/50
GNDD
R8017
100
CN8001
1 KEY_LED
2 DIMMER
3 KEY2
4 V+10
5 V+5
6 GNDD
7 GNDD
VKN1411-A
E CN9401
CN8002
1 VDD
2 GNDD
3 RESET
4 SCL
5 SDA
VKN1374-A
For DOWNLOAD
R8019
100
R8018
100

NSOR DESIGN MODELS:

eys are:

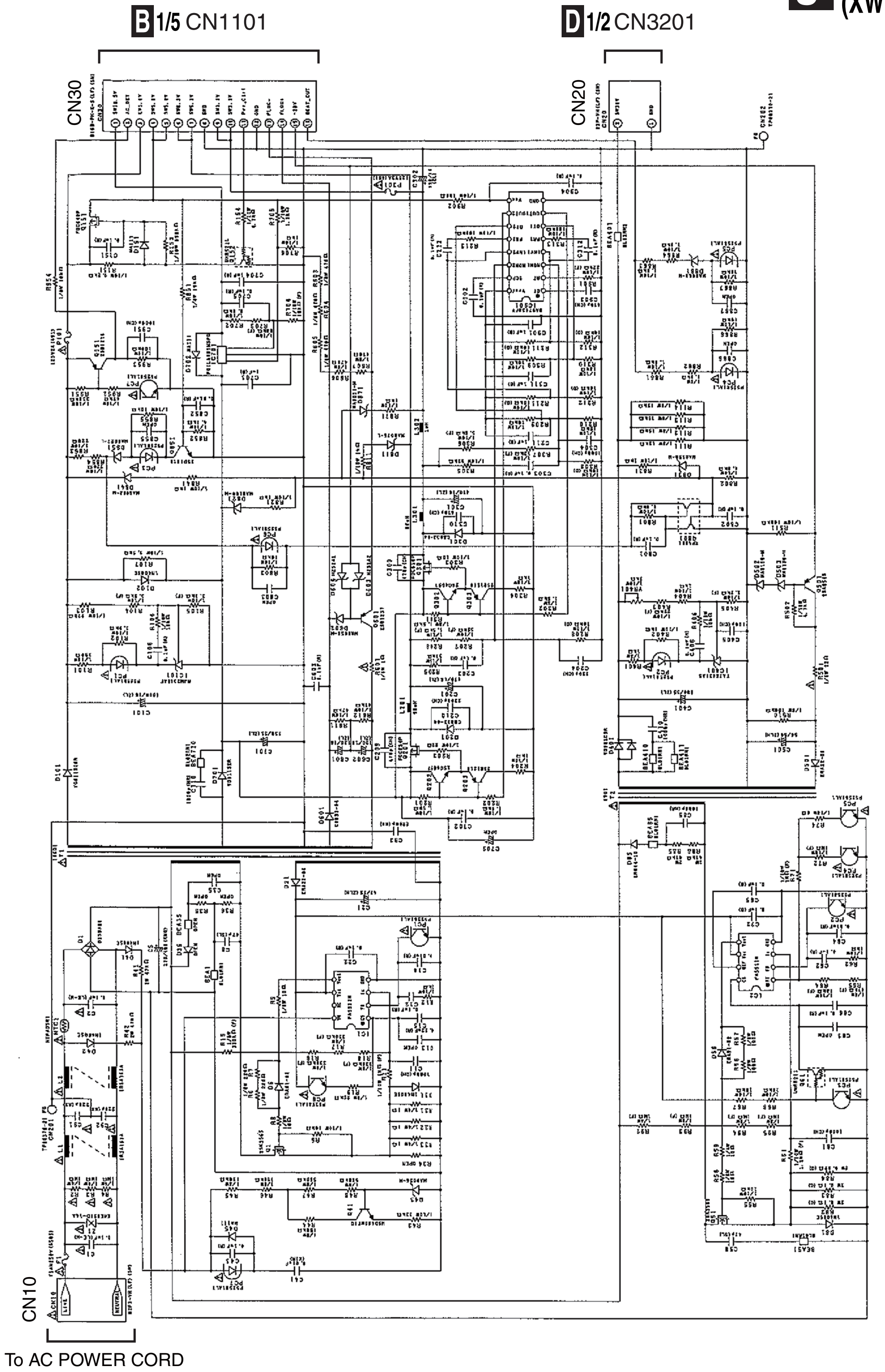
S	Adv-HTP
	VOL-
	VOL+
	ADVANCED
SE	SURROUND
ON	INPUT

10.16 AHTS COMPONENT ASSY


I AHTS COMPONENT ASSY (XWZ4346)
B 5/5 CN5852
CN9701
GNDD 1
Y 2
GNDD 3
Cb 4
GNDD 5
Cr 6
GNDD 7
9604S-07C
(CKS3372-)
R9701
STBY
R9702
75 (F)
R9703
75 (F)
R9704
STBY
R9705
75 (F)
R9706
STBY
C9701
STBY
C9702
STBY
C9703
STBY
JA9701
XKB3061
Cr
Cb
Y
(VKB1153)
To COMPONENT VIDEO O/P

10.17 POWER SUPPLY UNIT

J POWER SUPPLY UNIT (XWR3019)

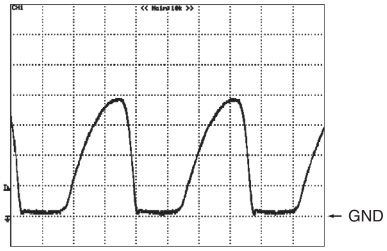

B 1/5 CN1101
D 1/2 CN3201
CN30
CN20
CN10
To AC POWER CORD

10.18 WAVEFORMS

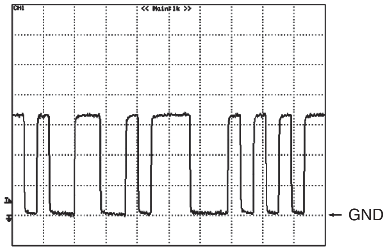
Note : The encircled numbers denote measuring point in the schematic diagram.

A 4IN1 MOD ASSY

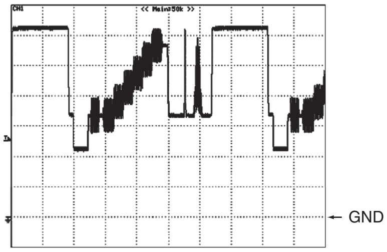
⓪ **X201 [XTALO]**
V: 0.5 V/div. H: 10 ns/div.
It must be mesured by High-impedance probe.



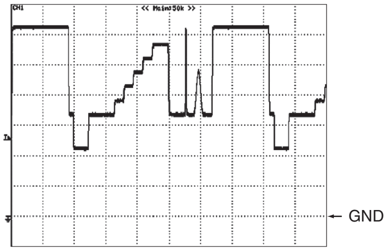
⑤ **IC201 - pin 215 [ASPDIF]**
V: 1 V/div. H: 200 ns/div.
It must be mesured by High-impedance probe.



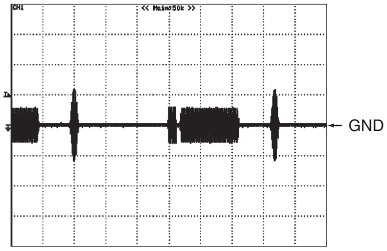
⑥ **IC401 - pin 23 [CVBSOUT]**
V: 0.5 V/div. H: 10 µs/div.
Playing DVD-REF-A1 Tr.2 Cp.1



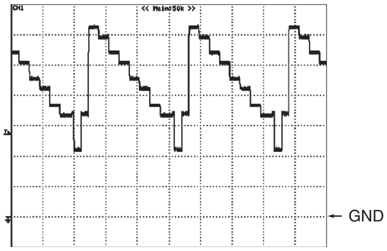
⑦ **IC401 - pin 21 [YOUT]**
V: 0.5 V/div. H: 10 µs/div.
Playing DVD-REF-A1 Tr.2 Cp.1



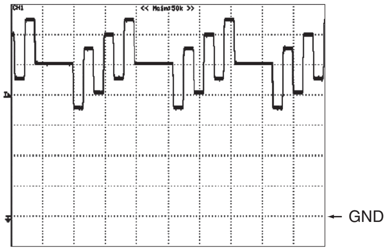
⑧ **IC401 - pin 26 [COUT]**
V: 0.5 V/div. H: 10 µs/div.
Playing DVD-REF-A1 Tr.2 Cp.1



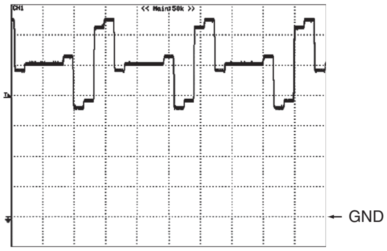
⑨ **IC401 - pin 20 [CYOUT]**
V: 0.5 V/div. H: 10 µs/div.
Playing DVD-REF-A1 Tr.2 Cp.19, Progressive output



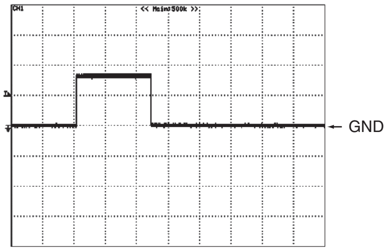
⑩ **IC401 - pin 18 [CbOUT]**
V: 0.5 V/div. H: 10 µs/div.
Playing DVD-REF-A1 Tr.2 Cp.19, Progressive output



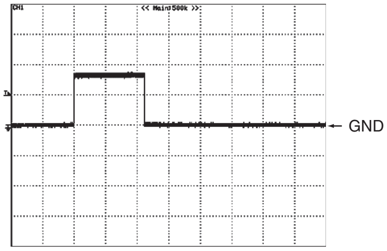
⑪ **IC401 - pin 16 [CrOUT]**
V: 0.5 V/div. H: 10 µs/div.
Playing DVD-REF-A1 Tr.2 Cp.19, Progressive output



⑫ **IC201 - pin 38 [TROPEN]**
V: 2 V/div. H: 500 ms/div.
Tray closing

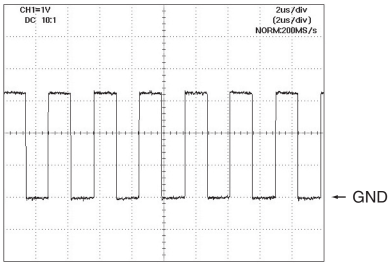


⑬ **IC201 - pin 202 [TRCLOSE]**
V: 2 V/div. H: 500 ms/div.
Tray opening

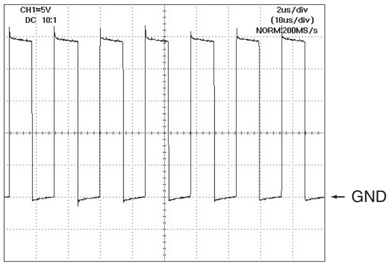


D AHTS-HTP AMP ASSY

① **IC3201, IC3301, IC3401 [PWM_M, PWM_P]**
V: 1 V/div. H: 2 µsec/div.



② **IC3201, IC3301, IC3401 [OUT_A, B, C, D]**
V: 5 V/div. H: 2 µsec/div.



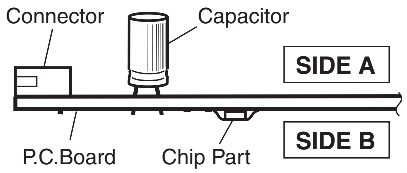
11. PCB CONNECTION DIAGRAM

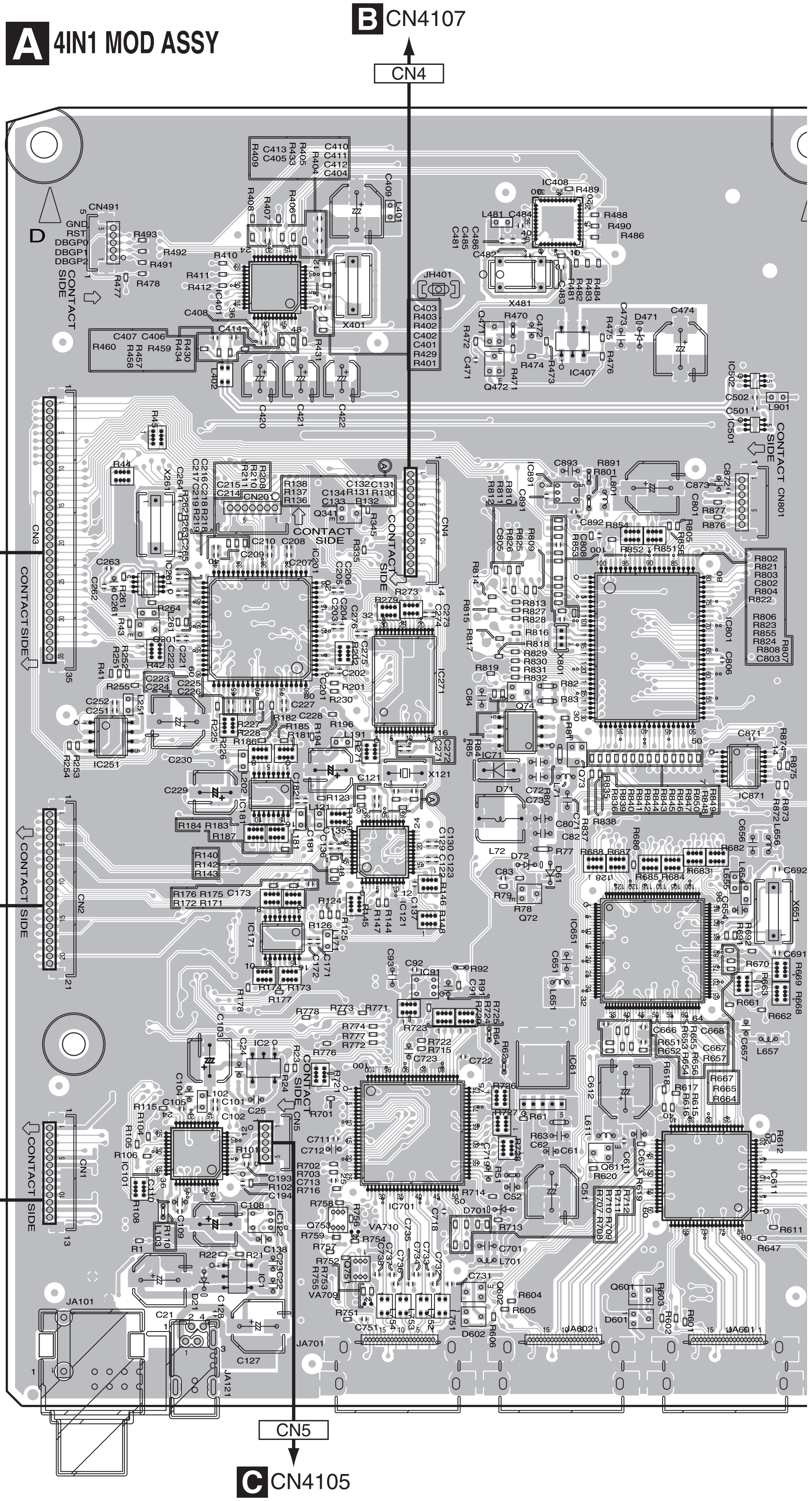
11.1 4IN1 MOD ASSY

SIDE A

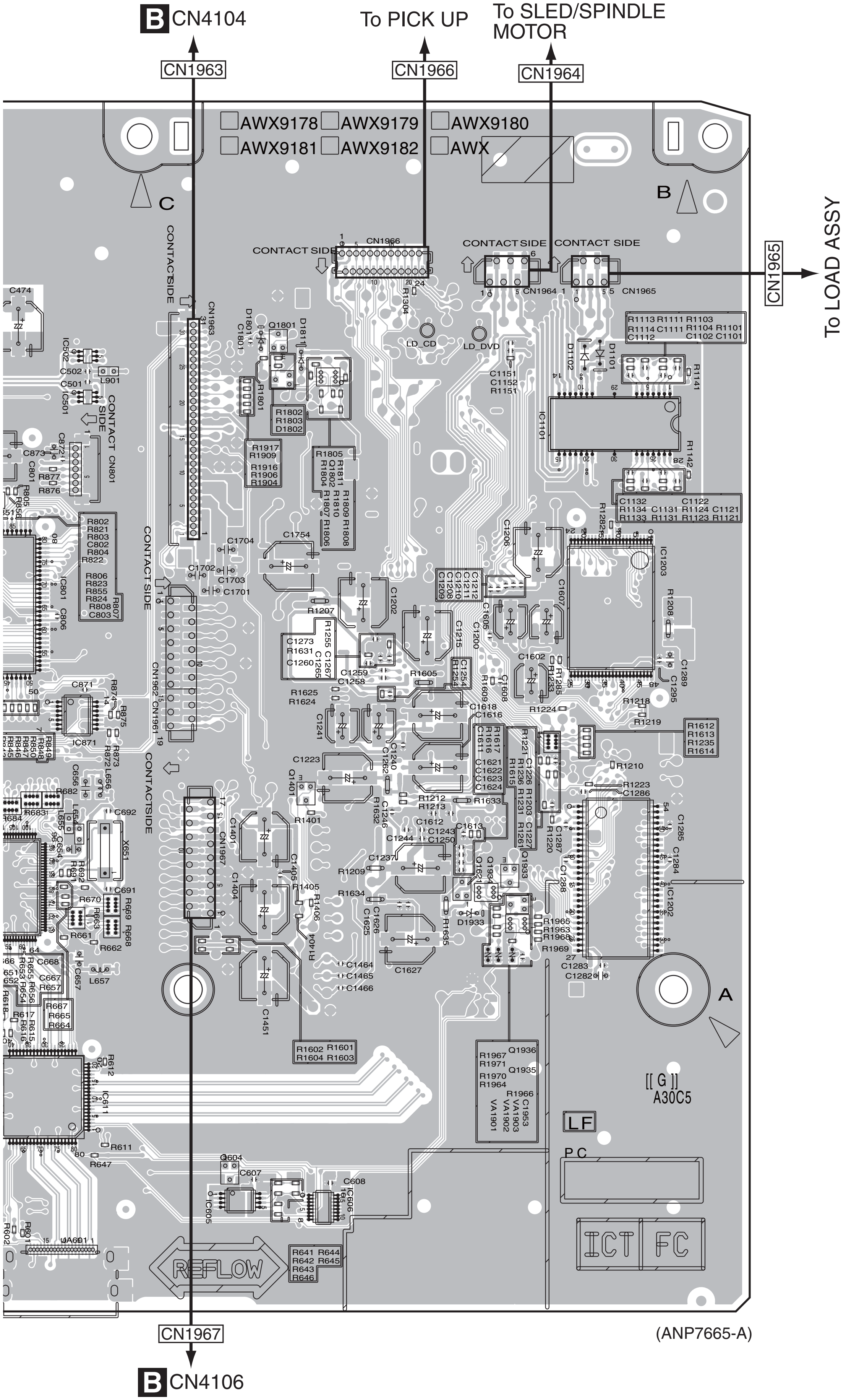
NOTE FOR PCB DIAGRAMS :

1. The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.
2. View point of PCB diagrams.


Connector
Capacitor
SIDE A
SIDE B
P.C.Board
Chip Part


A 4IN1 MOD ASSY
B CN4107
CN4
CN3
B CN4103
CN2
B CN4101
CN1
B CN4102
CN5
C CN4105
CONTACT SIDE
CN491
GND
RST
DBGP0
DBGP1
DBGP2
CN801
CN20
IC201
IC271
IC801
IC651
IC701
IC601
IC101
IC401
IC408
IC407
IC251
IC871
IC121
IC171
IC181
X401
X121
X481
X651
JH401
JA101
JA121
JA701
JA601
JA602

SIDE A


B CN4104
CN1963
To PICK UP
CN1966
To SLED/SPINDLE MOTOR
CN1964
CN1965
To LOAD ASSY
AWX9178
AWX9179
AWX9180
AWX9181
AWX9182
AWX
CONTACT SIDE
CN1967
B CN4106
IC1101
IC1203
IC1202
IC801
IC871
IC611
IC605
IC606
A
B
C
LF
PC
ICT
FC
REFLOW
[[G]]
A30C5

(ANP7665-A)

IC	Q
IC408	
IC401	Q471 Q1801
IC502 IC407	Q472
IC501	
IC1101	
IC891	
	Q341 Q1802
IC201 IC261	
IC1203	
IC801	Q201
IC271	
	Q74
IC71 IC251	
	Q73
IC871	
IC181	
	Q1401
IC121	Q72 Q1933
IC171 IC651	Q1621 Q1934
IC91 IC1202	
IC2	
IC61	
	Q1936
	Q1935
	Q611
IC101 IC611	
IC701	
IC122	Q753
	Q604
IC1 IC606 IC605	Q751 Q601 Q602

SIDE B

A

A 4IN1 MOD ASSY

IC	Q
	Q1307
	Q1308
IC1601	Q1305
	Q1304
IC1771	
IC341	
IC1711	
IC881	
IC331	
IC202 IC351	
IC1751	
IC882	
IC1241	
IC861	
IC1201	
IC191	Q71
IC1204	
	Q1481
IC1401	
IC771	
IC161	
IC1451	
	Q603
IC632	
IC601 IC602 IC603	Q752
IC604	

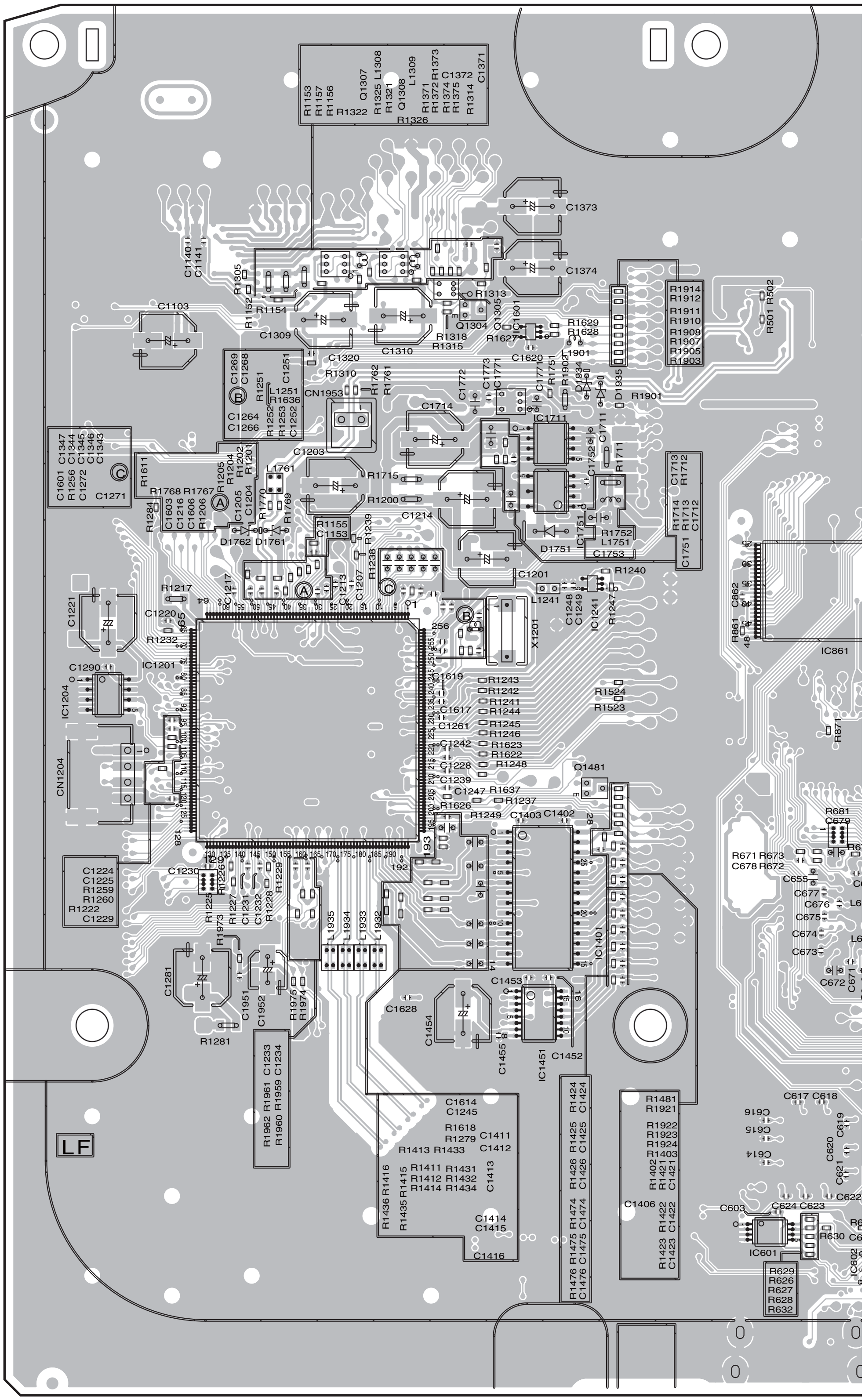
B

C

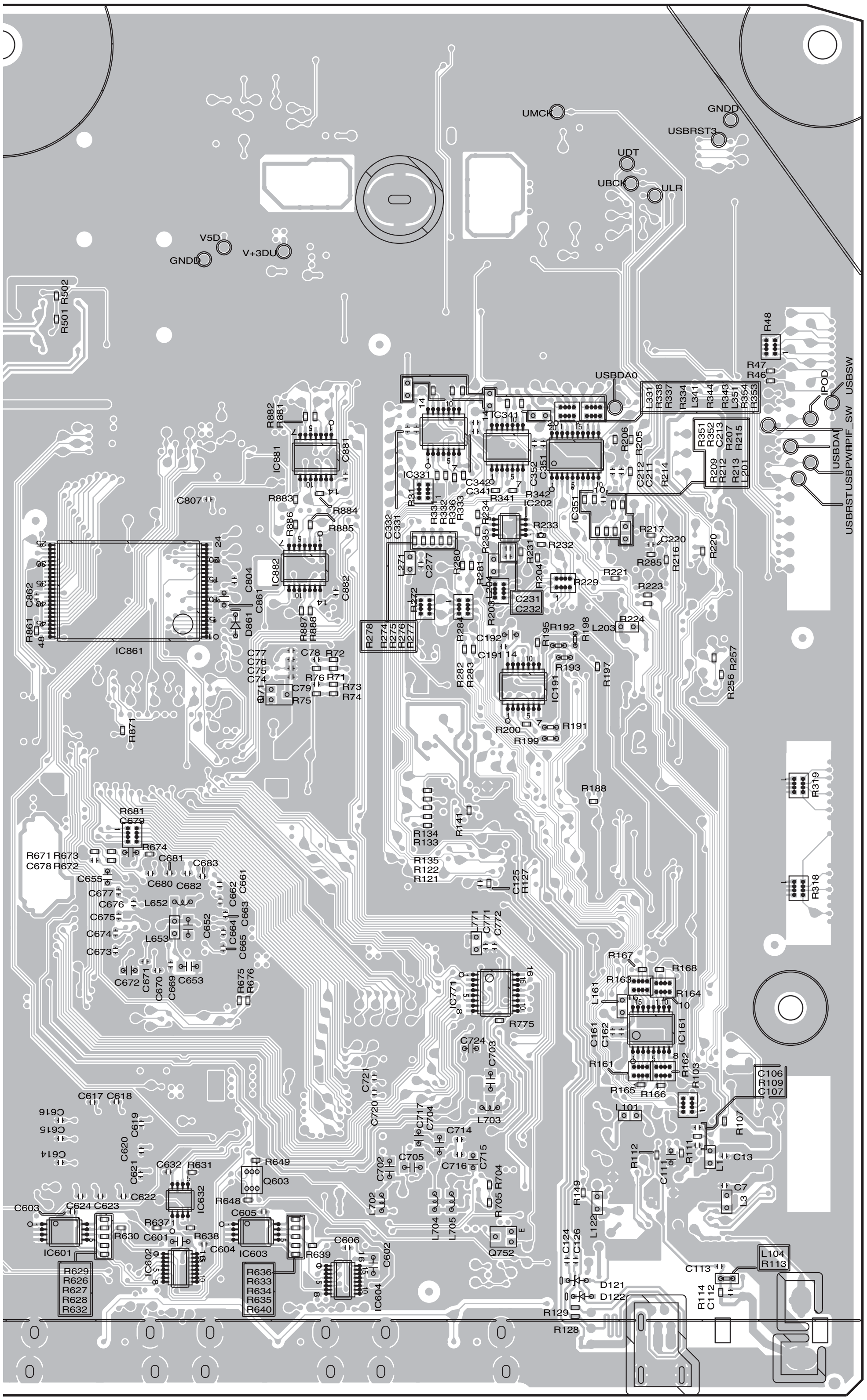
D

E

F


R1153
R1157
R1156
R1322
Q1307
R1325
L1308
R1321
Q1308
L1309
R1371
R1372
R1373
R1374
C1372
R1375
R1314
C1371
R1326
C1373
C1374
C1140
C1141
R1305
R1152
R1154
C1103
C1309
C1310
R1313
Q1304
Q1305
IC1601
R1318
R1315
R1627
R1629
R1628
C1620
R1914
R1912
R1911
R1910
R1908
R1907
R1905
R1903
R501
R502
R1901
C1320
R1310
C1269
C1268
R1251
C1251
L1251
R1636
CN1953
R1762
R1761
C1772
C1773
C1771
IC1711
D1934
D1935
C1264
C1266
R1252
R1253
C1252
C1714
C1601
C1347
R1256
C1344
C1345
C1346
C1343
C1272
C1271
R1611
R1768
R1767
R1205
R1204
R1202
R1201
C1203
L1761
R1715
R1200
C1713
R1712
R1714
R1713
C1712
C1751
R1284
C1603
C1216
C1606
R1206
C1205
C1204
R1770
R1769
D1762
D1761
R1155
C1153
R1239
C1214
R1238
D1751
R1752
L1751
C1753
C1201
R1240
C1221
R1217
C1217
C1220
R1232
C1213
C1207
L1241
C1248
C1249
IC1241
R1247
X1201
R861
C862
IC861
C1290
IC1201
IC1204
CN1204
C1619
R1243
R1242
R1241
C1617
R1244
R1245
C1261
R1246
R1623
C1242
R1622
C1228
R1248
C1239
R1524
R1523
R871
Q1481
C1247
R1637
R1237
R1626
R1249
C1403
C1402
R681
C679
R671
R673
C678
R672
C655
C677
C676
C675
C674
C673
C672
C671
C1224
C1225
R1259
R1260
R1222
C1229
C1230
R1225
R1226
R1227
C1231
C1232
R1228
R1229
L1935
L1934
L1933
L1932
IC1401
R1973
C1281
C1951
C1952
R1975
R1974
C1453
C1628
C1454
C1455
IC1451
C1452
R1281
R1962
R1961
C1233
R1960
R1959
C1234
LF
C1614
C1245
R1618
R1279
C1411
R1413
R1433
C1412
R1436
R1416
R1435
R1415
R1411
R1431
R1412
R1432
R1414
R1434
C1413
C1414
C1415
C1416
R1424
C1424
R1425
C1425
R1426
C1426
R1474
C1474
R1475
C1475
R1476
C1476
R1481
R1921
R1922
R1923
R1924
R1403
R1402
R1421
C1421
C1406
R1422
C1422
R1423
C1423
C617
C618
C616
C615
C614
C620
C619
C621
C622
C603
C624
C623
R630
IC601
IC602
R629
R626
R627
R628
R632

SIDE B

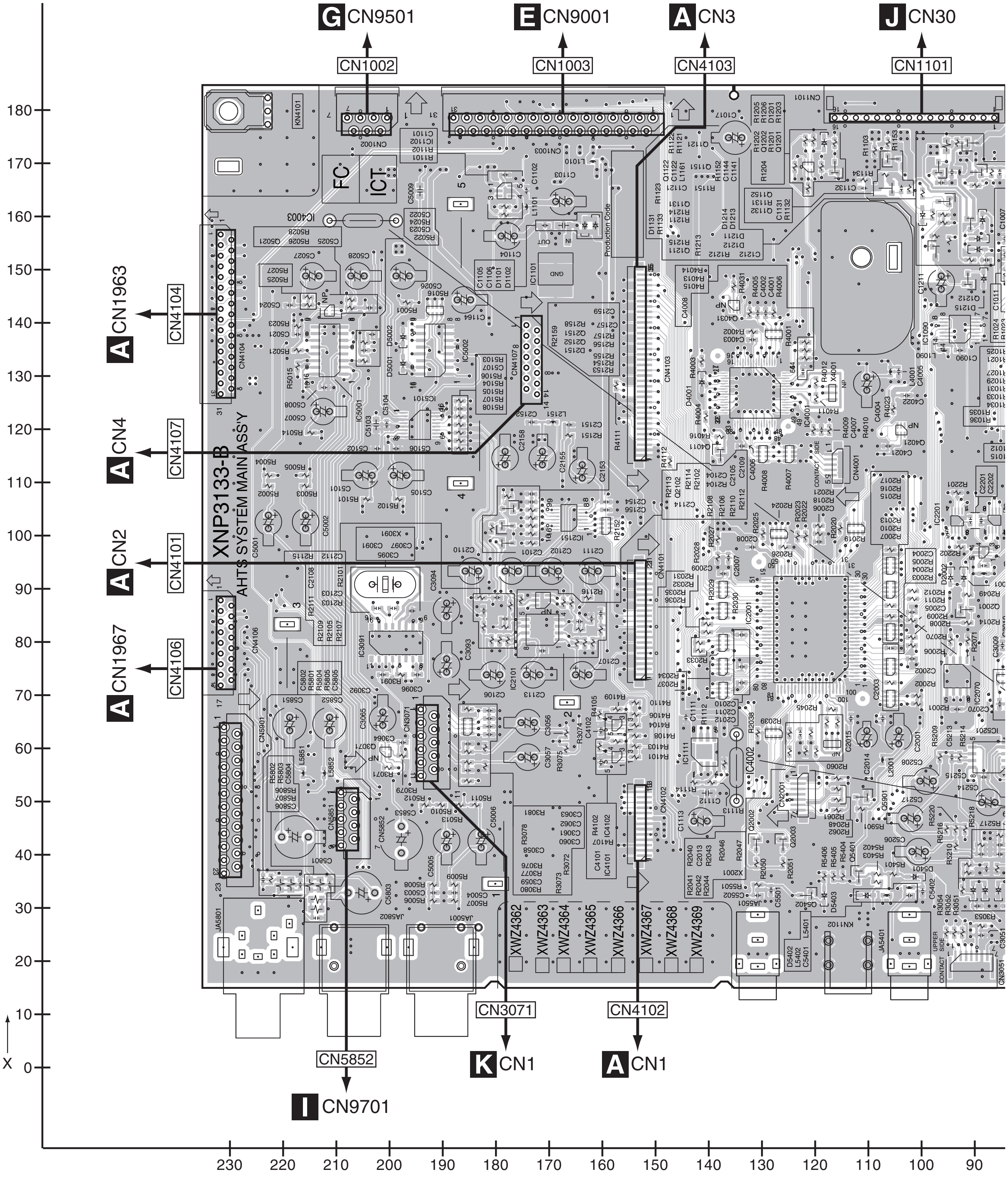

UMCK
GNDD
USBRST3
UDT
UBCK
ULR
V5D
GNDD
V+3DU
USBDA0
IPOD
USBSW
IPIF_SW
USBDA
USBPWR
USBRST
IC861
IC881
IC882
IC331
IC341
IC351
IC202
IC191
IC771
IC161
IC601
IC602
IC603
IC604
IC632
Q603
Q752
D861
D121
D122

(ANP7665-A)

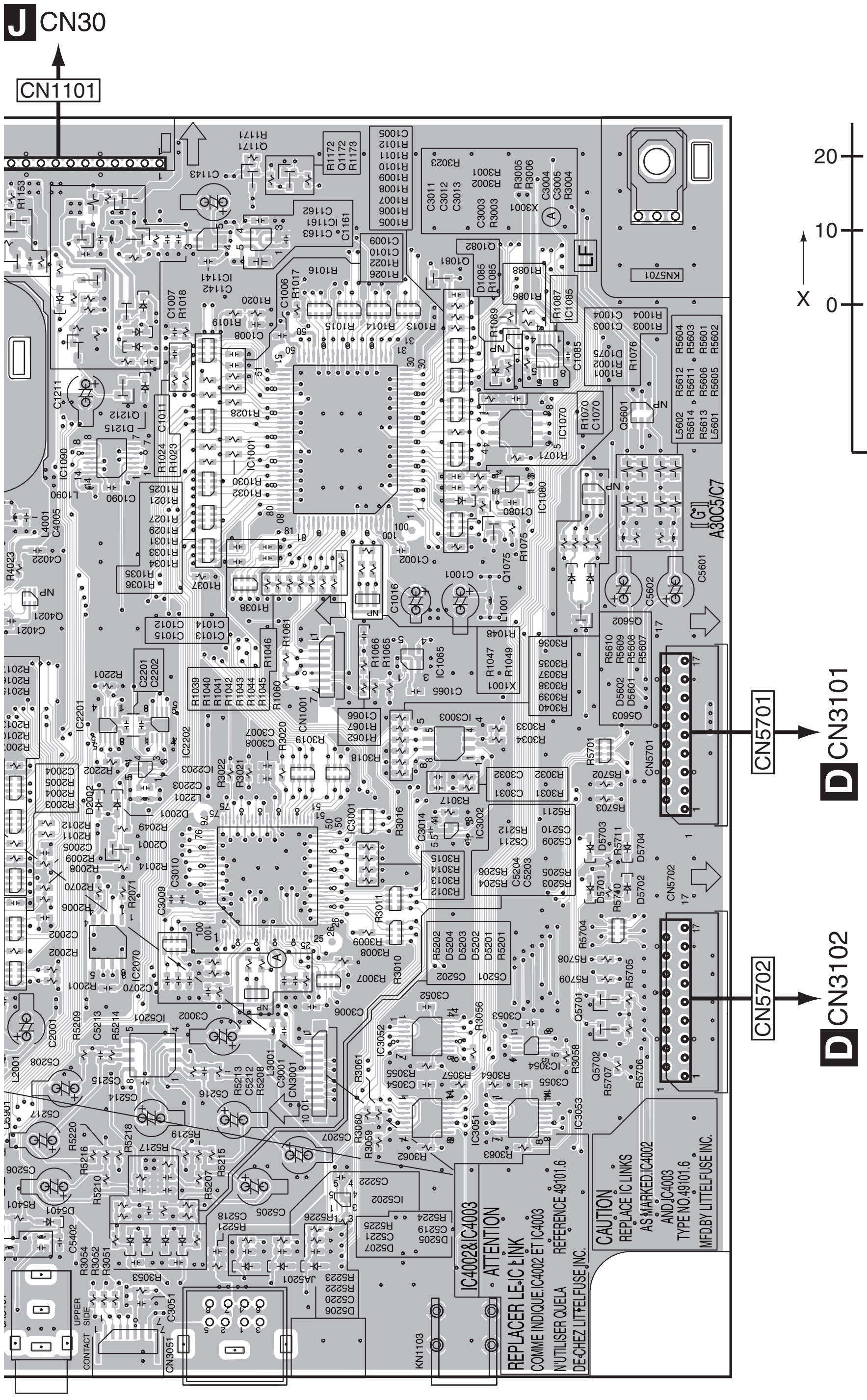
11.2 SYSMAIN and AHTS OPT IN ASSYS

SIDE A

B AHTS KU SYSMAIN ASSY


G CN9501
CN1002
E CN9001
CN1003
A CN3
CN4103
J CN30
CN1101
A CN1963
CN4104
A CN4
CN4107
A CN2
CN4101
A CN1967
CN4106
XNP3133-B
AHTS SYSTEM MAIN ASSY
FC
ICT
XWZ4362
XWZ4363
XWZ4364
XWZ4365
XWZ4366
XWZ4367
XWZ4368
XWZ4369
CN3071
CN4102
K CN1
A CN1
CN5852
I CN9701
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
X
230
220
210
200
190
180
170
160
150
140
130
120
110
100
90

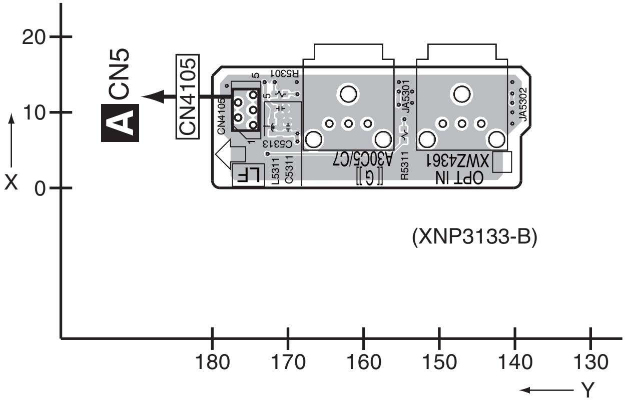
SIDE A


J CN30
CN1101
CN5701
D CN3101
CN5702
D CN3102
LF
[G1]
A30C5/C7
CAUTION
REPLACE IC LINKS
AS MARKED IC4002
AND IC4003
TYPE NO.49101.6
MFD BY LITTELFUSE INC.
IC4002&IC4003
ATTENTION
REPLACER LE IC LINK
COMME INDIQUE IC4002 ET IC4003
N'UTILISER QUE LA
REFERENCE 49101.6
DE CHEZ LITTELFUSE INC.
UPPER SIDE
CONTACT SIDE

(XNP3133-B)

100
90
80
70
60
50
40
30
20
10
Y

C AHTS OPT IN ASSY

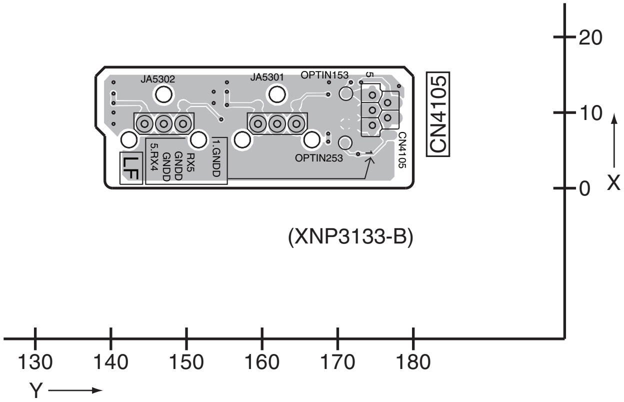

20
10
0
X
A CN5
CN4105
LF
[G1]
A30C5/C7
XWZ4361
OPT IN
JA5301
JA5302
180
170
160
150
140
130
Y

(XNP3133-B)

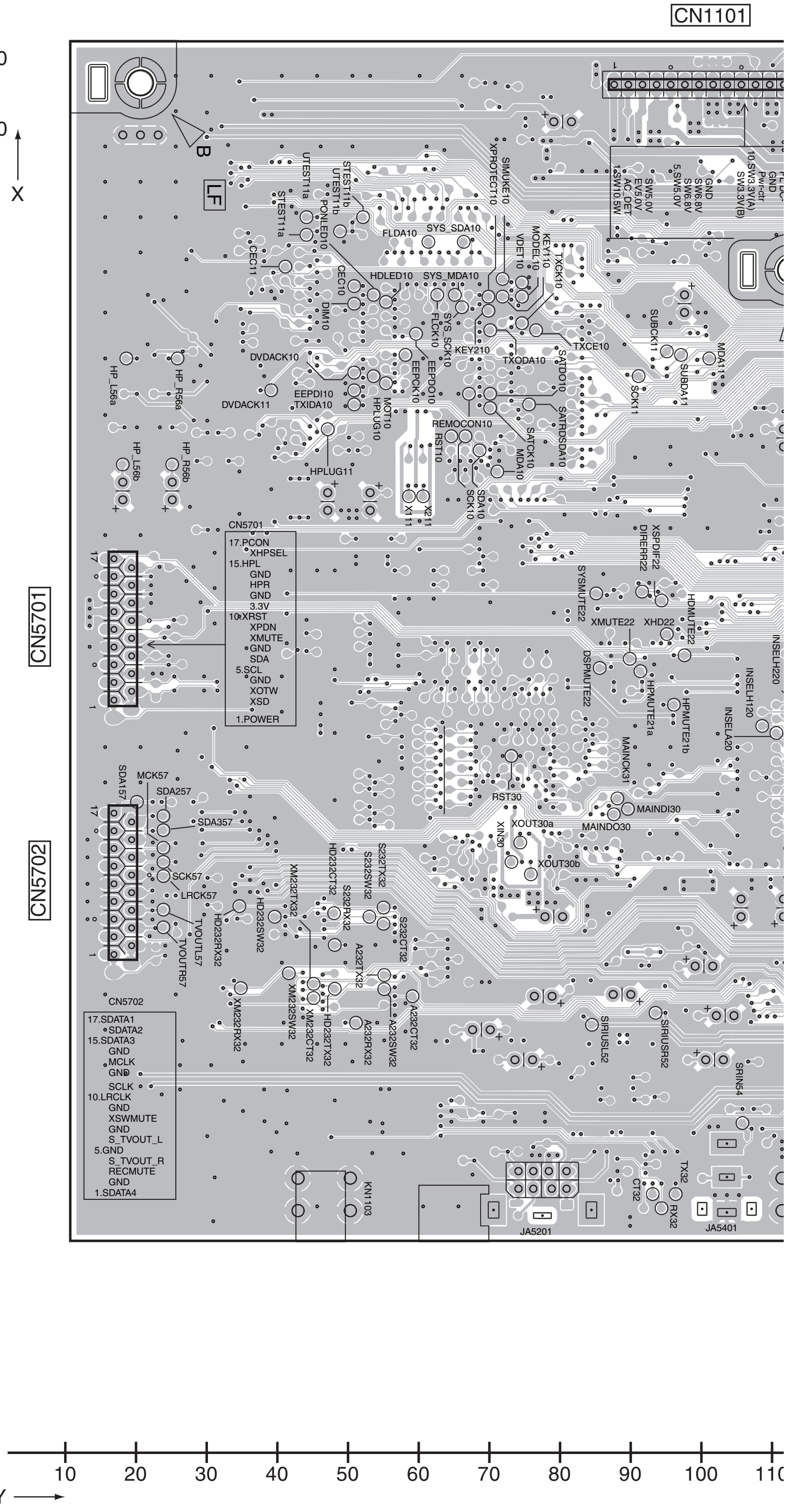
B C

SIDE B

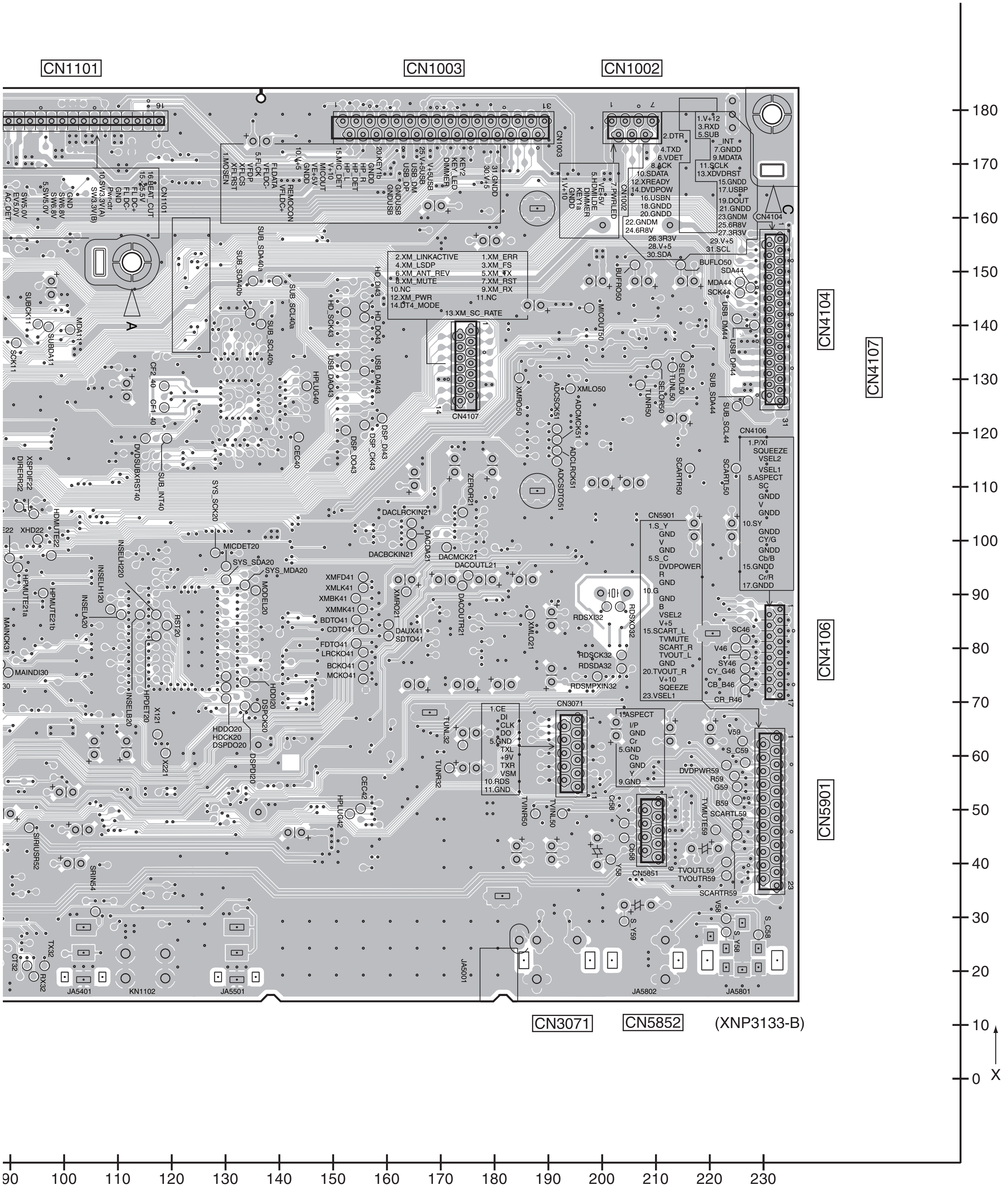
C AHTS OPT IN ASSY


JA5302
JA5301
OPTIN153
OPTIN253
CN4105
LF
1.GNDD
RX5
GNDD
GNDD
5.RX4
(XNP3133-B)
20
10
0
X
130
140
150
160
170
180
Y

B AHTS KU SYSMAIN ASSY


CN1101
B
LF
UTEST11a
UTEST11b
STEST11b
STEST11a
PONLED10
CEC11
CEC10
DM10
FLDA10
SYS_SDA10
SIMUTE10
XPROTECT10
KEY110
MODEL10
VDET10
TXCK10
HDLED10
SYS_MDA10
SYS_SCK10
FLCK10
KEY210
TXCE10
TXODA10
SATDO10
SUBCK11
SUBDA11
MDA11
SCK11
DVDACK10
DVDACK11
EEPDI10
TXIDA10
EEPDO10
EEPCK10
MOT10
HPLUG10
HPLUG11
REMOCON10
RST10
SATCK10
SATRDSDA10
MDA10
SDA10
SCK10
X11
X211
HP_L56a
HP_R56a
HP_L56b
HP_R56b
CN5701
17.PCON
XHPSEL
15.HPL
GND
HPR
GND
3.3V
10.XRST
XPDN
XMUTE
GND
SDA
5.SCL
GND
XOTW
XSD
1.POWER
CN5701
XSPDIF22
DIRERR22
SYSMUTE22
XMUTE22
XHD22
HDMUTE22
DSPMUTE22
HPMUTE21a
HPMUTE21b
INSELH220
INSELH120
INSELA20
MAINCK31
MAINDI30
MAINDO30
RST30
XIN30
XOUT30a
XOUT30b
CN5702
SDA157
MCK57
SDA257
SDA357
SCK57
LRCK57
TVOUTL57
TVOUTR57
HD232RX32
HD232SW32
XM232TX32
HD232CT32
S232RX32
S232SW32
S232TX32
S232CT32
A232TX32
XM232RX32
XM232SW32
XM232CT32
HD232TX32
A232RX32
A232SW32
A232CT32
CN5702
17.SDATA1
SDATA2
15.SDATA3
GND
MCLK
GND
SCLK
10.LRCLK
GND
XSWMUTE
GND
S_TVOUT_L
5.GND
S_TVOUT_R
RECMUTE
GND
1.SDATA4
SIRIUSL52
SIRIUSR52
SRIN54
KN1103
JA5201
CT32
TX32
RX32
JA5401
1
10.SW3.3V(A)
SW3.3V(B)
GND
SW6.8V
5.SW5.0V
SW5.0V
EV5.0V
AC_DET
1.SW10.5W
10
20
30
40
50
60
70
80
90
100
Y

SIDE B

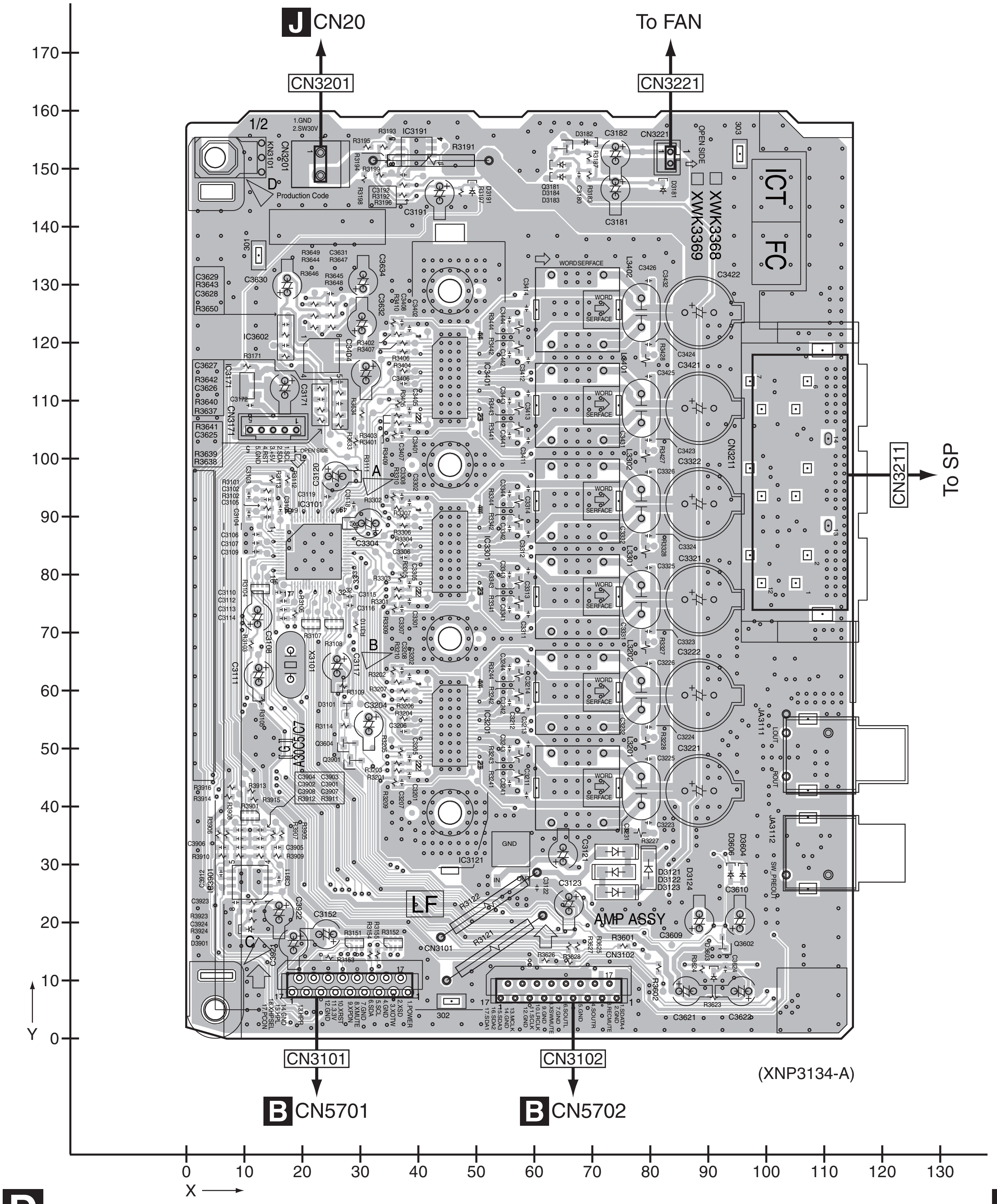

CN1101
CN1003
CN1002
CN4104
CN4107
CN4106
CN5901
CN3071
CN5852
(XNP3133-B)
1.V+12
3.RXD
5.SUB
INT
2.DTR
4.TXD
6.VDET
7.GNDD
8.ACK
9.MDATA
10.SDATA
11.SCLK
12.XREADY
13.XDVDRST
14.DVDPOW
15.GNDD
16.USBN
17.USBP
18.GNDD
19.DOUT
20.GNDD
21.GNDD
22.GNDM
23.GNDM
24.6R8V
25.6R8V
26.3R3V
27.3R3V
28.V+5
29.V+5
30.SDA
31.SCL
2.XM_LINKACTIVE
1.XM_ERR
4.XM_LSDP
3.XM_FS
6.XM_ANT_REV
5.XM_TX
8.XM_MUTE
7.XM_RST
10.NC
9.XM_RX
12.XM_PWR
11.NC
14.DT4_MODE
13.XM_SC_RATE
CN5901
1.S_Y
GND
V
GND
5.S_C
DVDPOWER
R
GND
10.G
GND
B
VSEL2
V+5
15.SCART_L
TVMUTE
SCART_R
TVOUT_L
GND
20.TVOUT_R
V+10
SQEEZE
23.VSEL1
CN4106
1.P/XI
SQUEEZE
VSEL2
V
VSEL1
5.ASPECT
SC
GNDD
V
GNDD
10.SY
GNDD
CY/G
GNDD
Cb/B
15.GNDD
Cr/R
17.GNDD
1.CE
DI
CLK
DO
5.GND
TXL
+9V
TXR
VSM
10.RDS
11.GND
1.ASPECT
I/P
GND
Cr
5.GND
Cb
GND
Y
9.GND
JA5401
KN1102
JA5501
JA5001
JA5802
JA5801
CN5851
A
C
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
X
90
100
110
120
130
140
150
160
170
180
190
200
210
220
230

B C

11.3 AHTS-HTP AMP ASSY

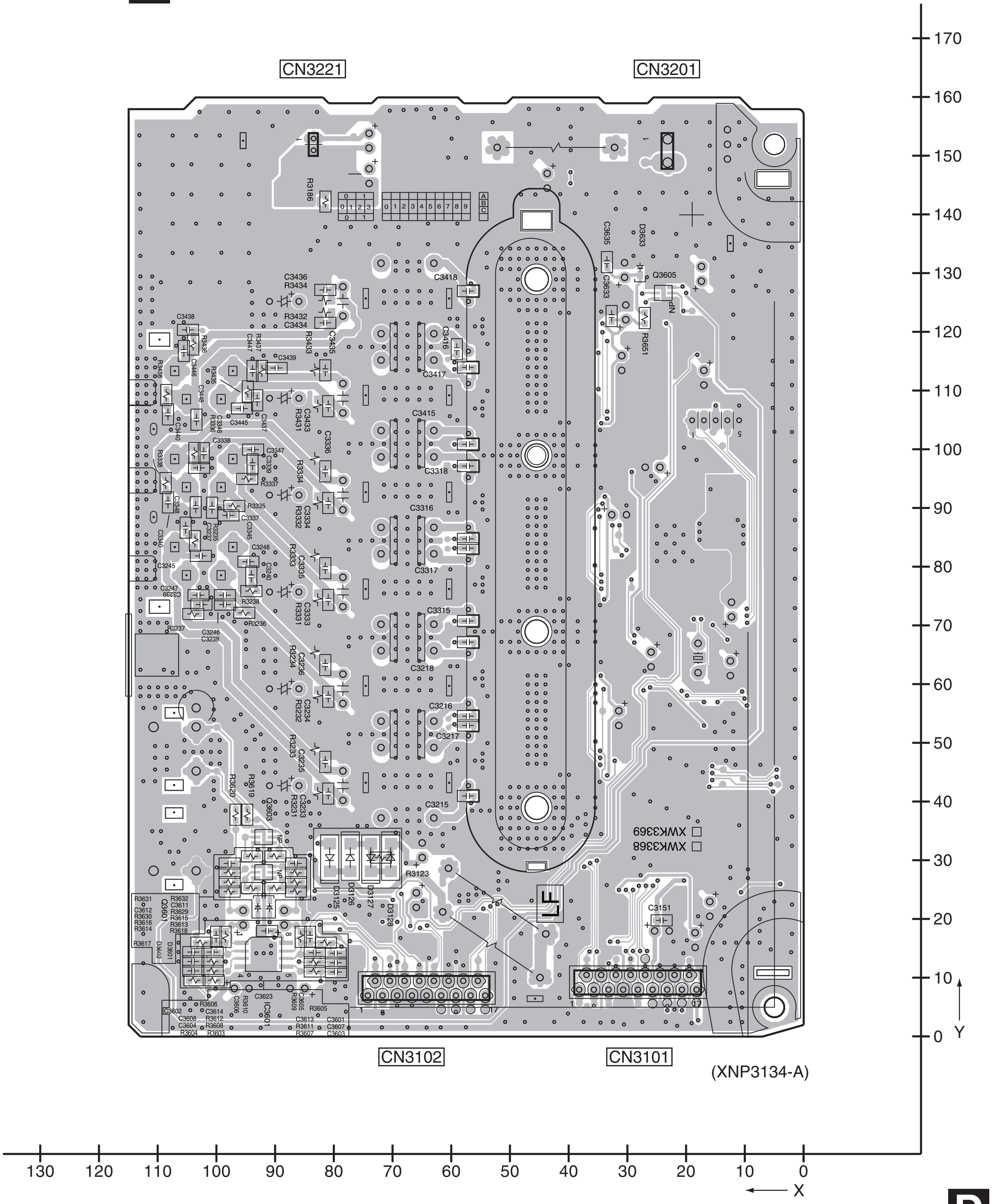
SIDE A **SIDE A**

D AHTS-HTP AMP ASSY


J CN20
To FAN
CN3201
CN3221
1/2
1.GND
2.SW30V
Production Code
IC3191
IC3602
IC3101
IC3401
IC3301
IC3201
IC3121
CN3171
X3101
WORDSERFACE
ICT
FC
XWK3368
XWK3369
OPEN SIDE
CN3211
To SP
JA3111
JA3112
LOUT
ROUT
SW PREOUT
GND
LF
AMP ASSY
IN
CN3101
CN3102
302
[G]
A30C5/C7
17
1
CN3101
CN3102
B CN5701
B CN5702
(XNP3134-A)
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
Y
0
10
20
30
40
50
60
70
80
90
100
110
120
130
X

SIDE B **SIDE B**

D AHTS-HTP AMP ASSY


CN3221
CN3201
R3186
C3436
R3434
R3432
C3434
R3433
C3435
C3418
C3416
C3417
C3415
C3318
C3316
C3317
C3315
C3218
C3216
C3217
C3215
C3438
R3436
C3447
R3437
C3439
R3438
C3446
R3435
C3449
C3445
C3437
R3433
R3431
C3433
C3336
C3340
R3336
C3346
C3338
C3347
R3338
C3339
R3337
R3334
R3335
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C3333
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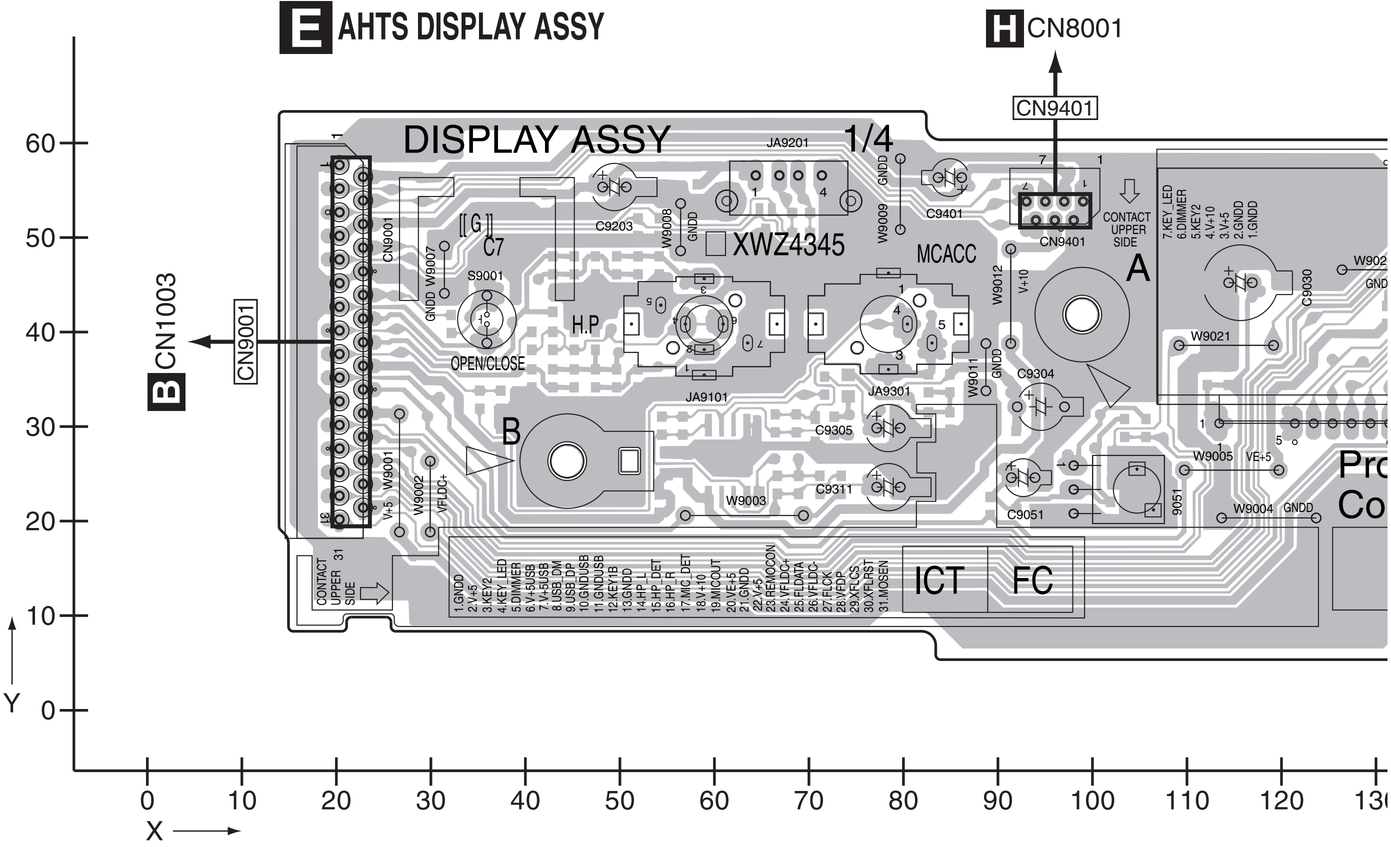
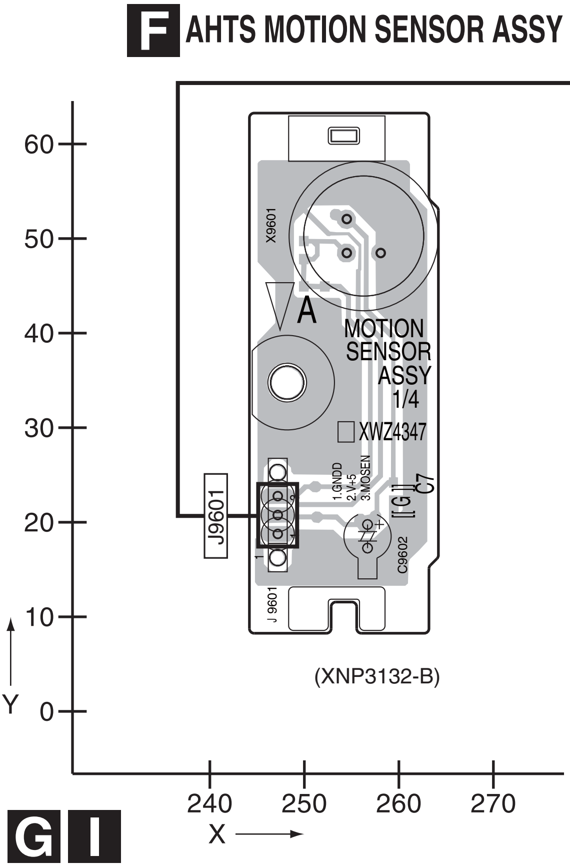
R3232
C3234
R3233
C3235
R3620
R3619
C3603
R3231
C3233
C3635
D3633
Q3605
C3633
R3651
NP
XWK3369
XWK3368
R3123
D3125
D3126
D3127
D3128
LF
C3151
R3631
C3612
R3630
R3616
R3614
R3617
R3632
C3611
R3629
R3615
R3613
R3618
C3601
D3601
D3602
C3602
C3608
C3604
R3604
R3606
C3614
R3612
R3608
R3603
R3610
C3606
C3623
IC3601
R3609
C3605
R3605
C3613
R3611
R3607
C3601
C3607
C3603
CN3102
CN3101
(XNP3134-A)
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
Y
130
120
110
100
90
80
70
60
50
40
30
20
10
0
X

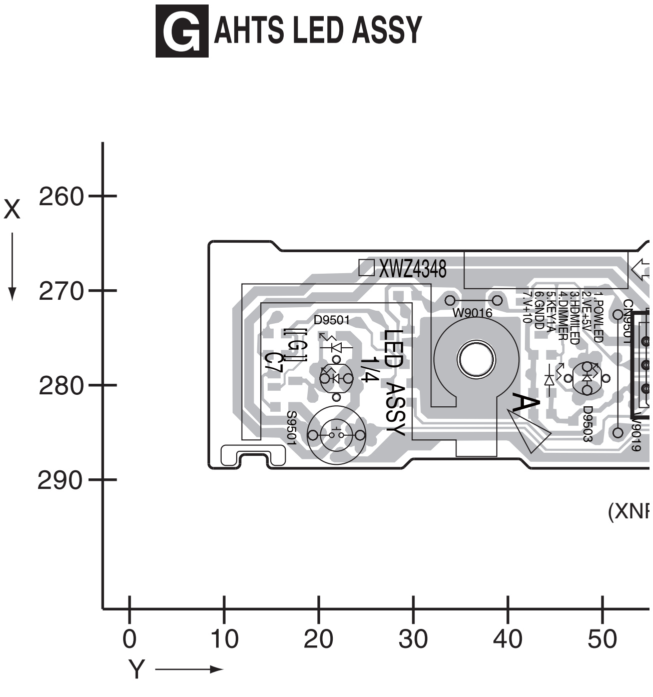
11.4 AHTS DISPLAY, MOTION SENSOR, LED and COMPONENT ASSYS

SIDE A


E AHTS DISPLAY ASSY
H CN8001
CN9401
DISPLAY ASSY 1/4
JA9201
XWZ4345
MCACC
B CN1003
CN9001
[[G]] C7
S9001
OPEN/CLOSE
H.P
C9203
W9008
GNDD
W9009
C9401
CN9401
CONTACT UPPER SIDE
7.KEY_LED
6.DIMMER
5.KEY2
4.V+10
3.V+5
2.GNDD
1.GNDD
W9012
V+10
W9011
GNDD
C9304
C9030
W9021
W9005
VE+5
W9004
GNDD
C9051
9051
JA9101
JA9301
C9305
C9311
W9003
W9001
W9002
V+5
VFLDC+
GNDD W9007
CN9001
CONTACT UPPER SIDE 31
1.GNDD
2.V+5
3.KEY2
4.KEY_LED
5.DIMMER
6.V+5USB
7.V+5USB
8.USB_DM
9.USB_DP
10.GNDUSB
11.GNDUSB
12.KEY1B
13.GNDD
14.HP_L
15.HP_DET
16.HP_R
17.MIC_DET
18.V+10
19.MICOUT
20.VE+5
21.GNDD
22.V+5
23.REMOCON
24.VFLDC+
25.FLDATA
26.VFLDC-
27.FLCK
28.VFDP
29.XFLCS
30.XFLRST
31.MOSEN
ICT
FC
A
B
Pro
Co
60
50
40
30
20
10
Y 0
0 10 20 30 40 50 60 70 80 90 100 110 120 130
X


F AHTS MOTION SENSOR ASSY
X9601
A
MOTION SENSOR ASSY 1/4
XWZ4347
1.GNDD
2.V+5
3.MOSEN
[[G]] C7
C9602
J9601
J 9601
60
50
40
30
20
10
Y 0
240 250 260 270
X

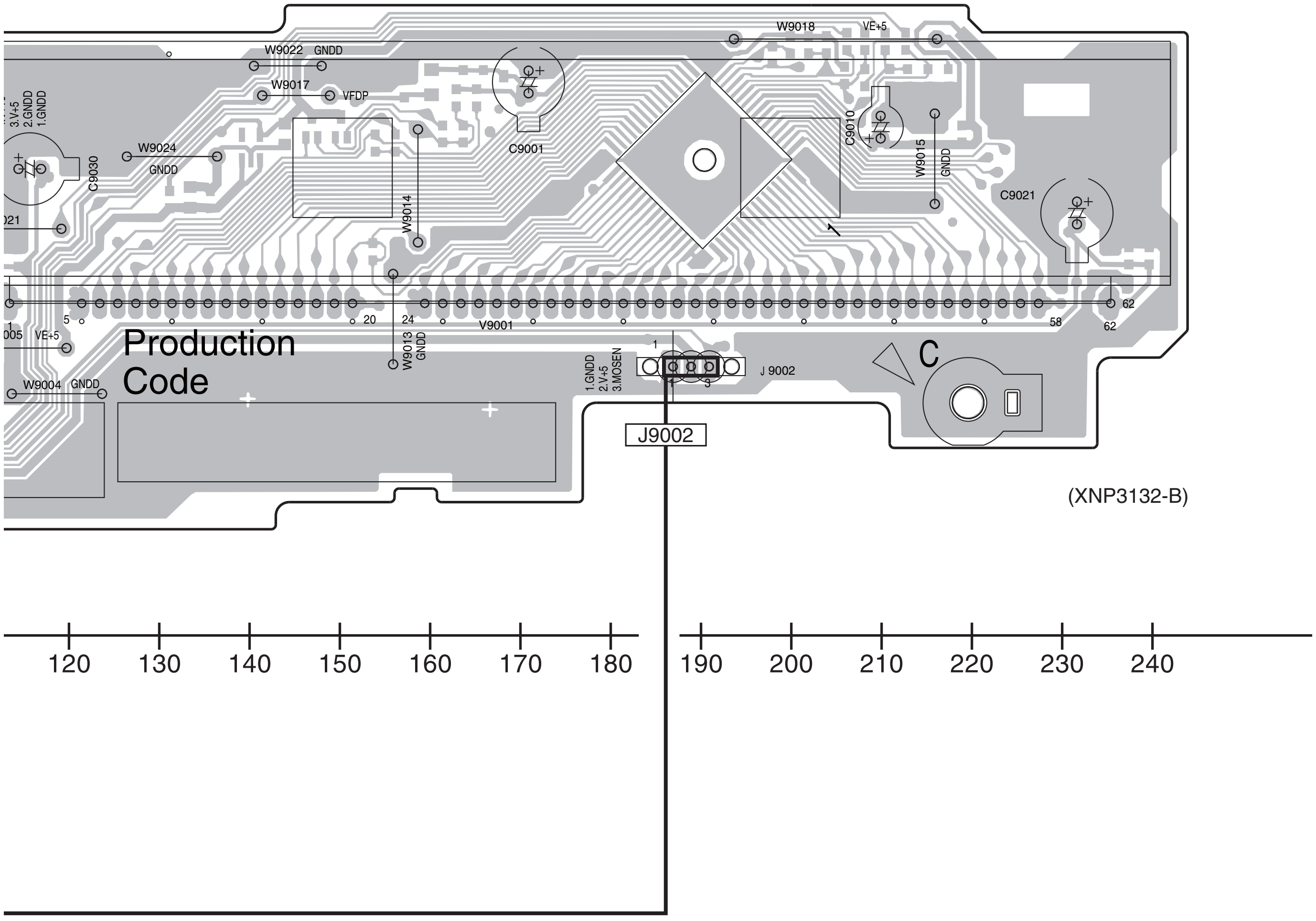
(XNP3132-B)


G AHTS LED ASSY
X
260
270
280
290
XWZ4348
D9501
W9016
[[G]] C7
LED ASSY 1/4
S9501
A
1.POWLED
2.VE+5
3.HDMILED
4.DIMMER
5.KEY1A
6.GNDD
7.V+10
CN9501
D9503
W9019
0 10 20 30 40 50
Y

(XNI

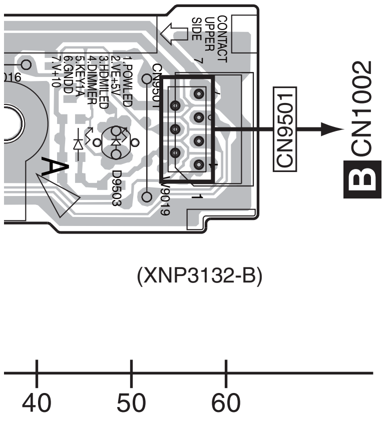
E F G I

SIDE A

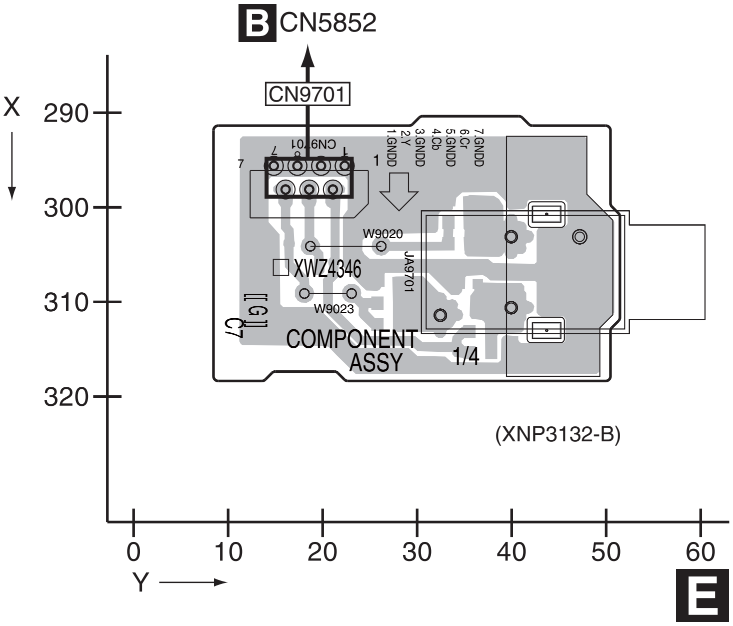

W9018
VE+5
W9022
GNDD
W9017
VFDP
3.V+5
2.GNDD
1.GNDD
W9024
GNDD
C9030
C9001
W9014
C9010
W9015
GNDD
C9021
V9001
W9013
GNDD
1.GNDD
2.V+5
3.MOSEN
J 9002
J9002
W9004
GNDD
VE+5
Production Code
C
1
5
20
24
58
62
120
130
140
150
160
170
180
190
200
210
220
230
240

(XNP3132-B)

I AHTS COMPONENT ASSY


CONTACT UPPER SIDE
1.POWLED
2.VE+5V
3.HDMILED
4.DIMMER
5.KEY1A
6.GNDD
7.V+10
CN9501
D9503
A
CN9501
B CN1002
40
50
60

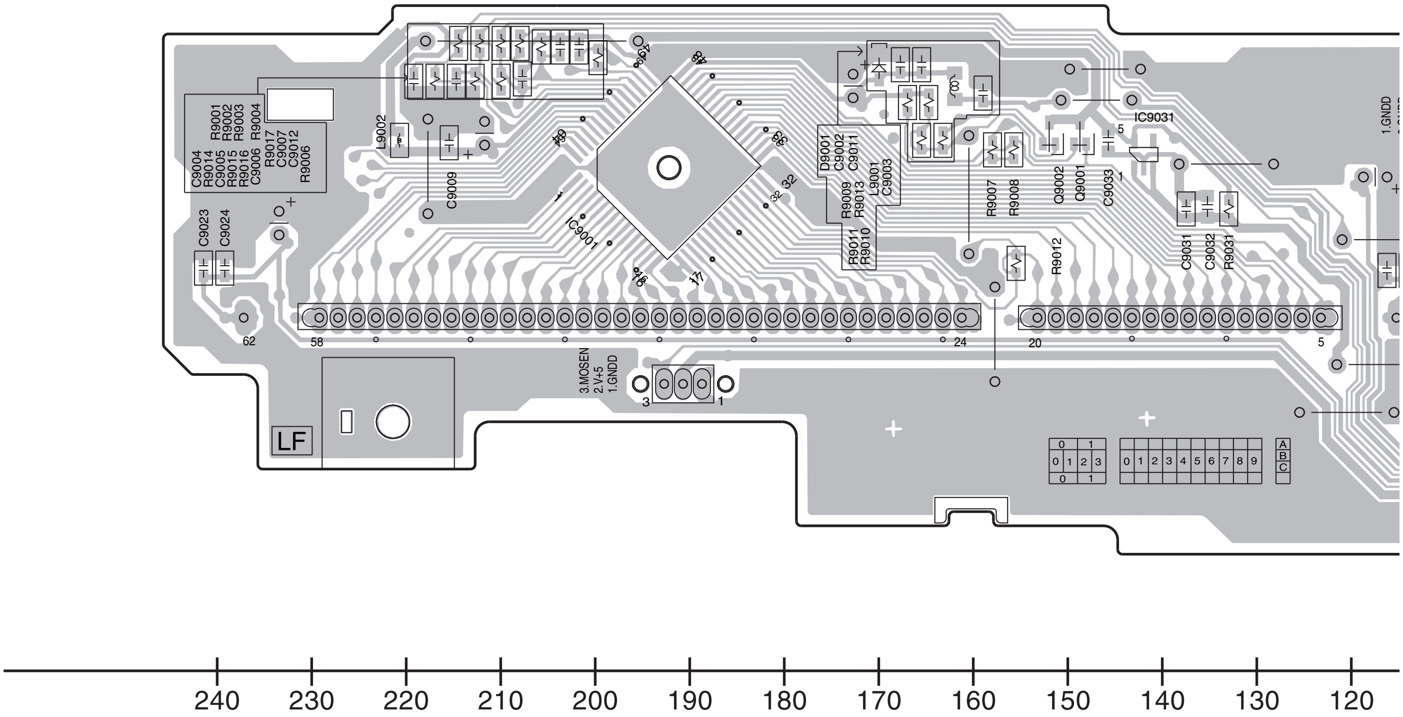
(XNP3132-B)


B CN5852
CN9701
X
Y
7.GNDD
6.Cr
5.GNDD
4.Cb
3.GNDD
2.Y
1.GNDD
W9020
XWZ4346
JA9701
W9023
COMPONENT ASSY
1/4
290
300
310
320
0
10
20
30
40
50
60

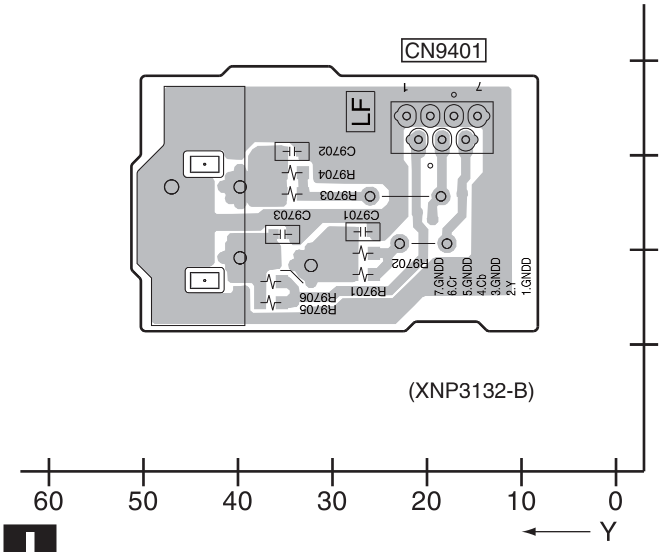
(XNP3132-B)

E F G I

E AHTS DISPLAY ASSY

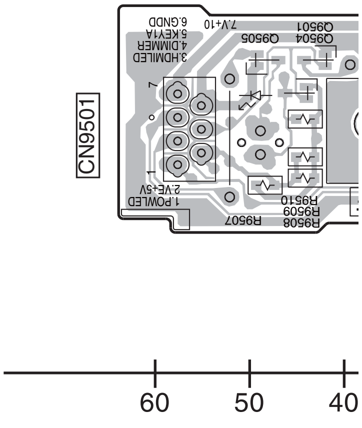

C9004
R9014
C9005
R9015
R9016
C9006
R9001
R9002
R9003
R9004
R9017
C9007
C9012
R9006
C9023
C9024
L9002
C9009
IC9001
64
49
48
33
32
17
16
1
D9001
C9002
C9011
L9001
C9003
R9009
R9013
R9011
R9010
R9007
R9008
R9012
Q9002
Q9001
C9033
IC9031
5
1
C9031
C9032
R9031
1.GNDD
62
58
24
20
5
3.MOSEN
2.V+5
1.GNDD
3
1
LF
240
230
220
210
200
190
180
170
160
150
140
130
120

I AHTS COMPONENT ASSY

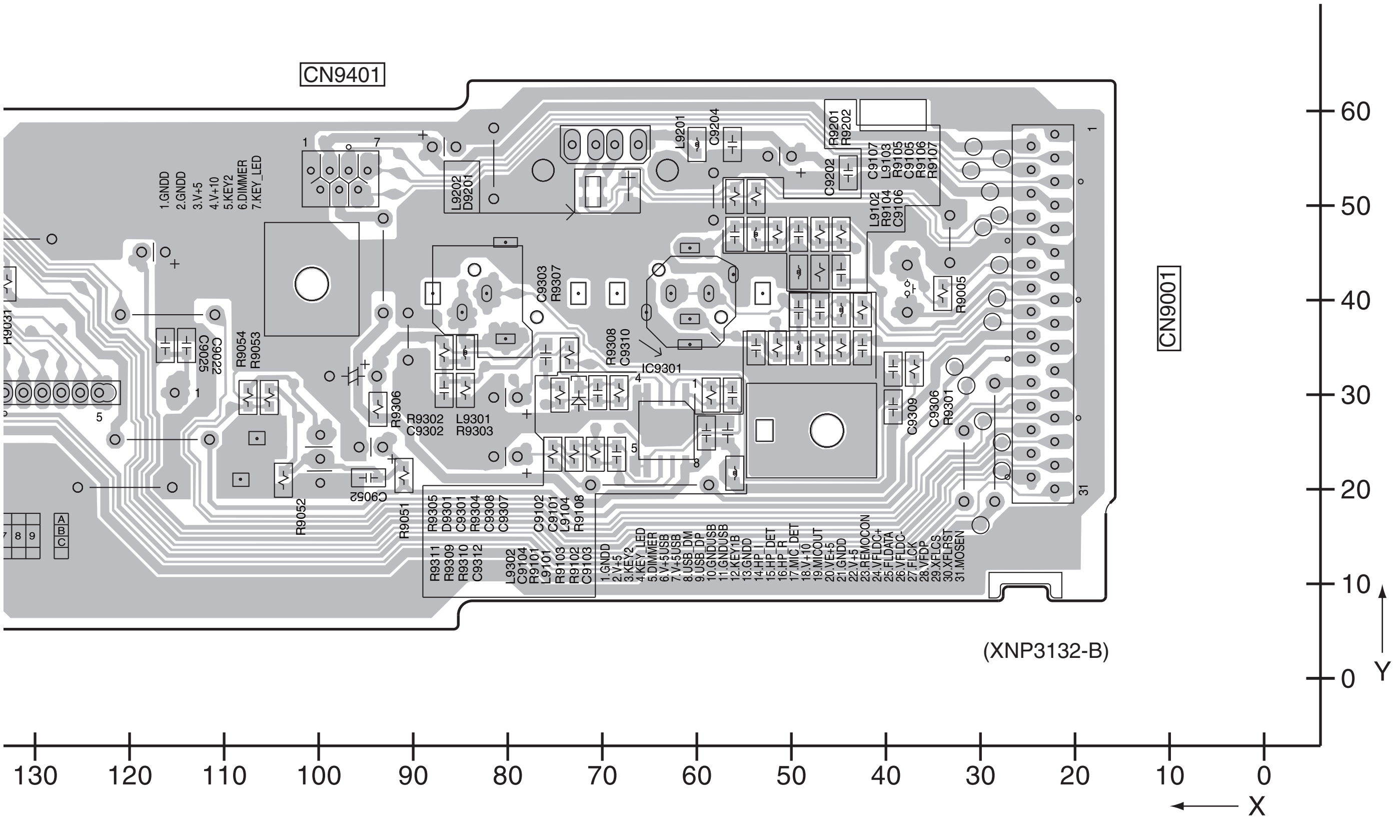

CN9401
1
7
LF
C9702
R9704
R9703
C9703
C9701
R9702
R9701
R9705
R9706
7.GNDD
6.Cr
5.GNDD
4.Cb
3.GNDD
2.Y
1.GNDD
290
300
310
320
X
60
50
40
30
20
10
0
Y

(XNP3132-B)

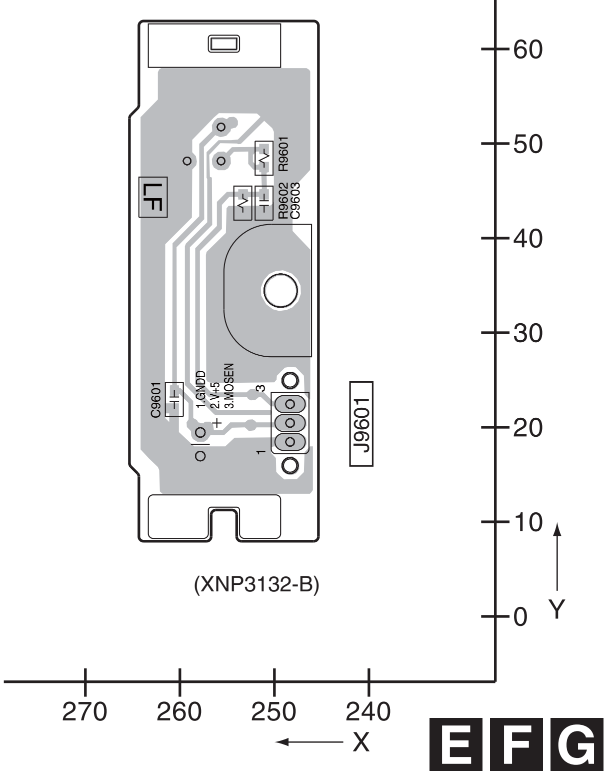
G AHTS LED ASS


CN9501
7.V+10
6.GNDD
5.KEY1A
4.DIMMER
3.HDMILED
2.VE+5V
1.POWLED
Q9501
Q9504
Q9505
R9507
R9508
R9509
R9510
7
1
60
50
40

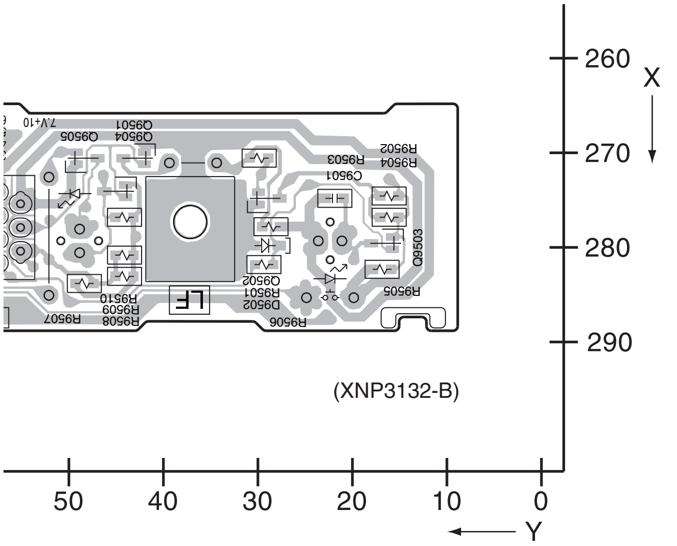
SIDE B


CN9401
1.GNDD
2.GNDD
3.V+5
4.V+10
5.KEY2
6.DIMMER
7.KEY_LED
C9025
C9022
R9054
R9053
R9306
R9302
C9302
L9301
R9303
C9303
R9307
R9308
C9310
IC9301
L9202
D9201
L9201
C9204
R9201
R9202
C9202
C9107
L9103
R9105
C9105
R9106
R9107
L9102
R9104
C9106
R9005
CN9001
C9309
C9306
R9301
R9052
C9052
R9051
R9305
D9301
C9301
R9304
C9308
C9307
C9102
C9101
L9104
R9108
R9311
R9309
R9310
C9312
L9302
C9104
R9101
L9101
R9103
R9102
C9103
1.GNDD
2.V+5
3.KEY2
4.KEY_LED
5.DIMMER
6.V+5USB
7.V+5USB
8.USB_DM
9.USB_DP
10.GNDUSB
11.GNDUSB
12.KEY1B
13.GNDD
14.HP_L
15.HP_DET
16.HP_R
17.MIC_DET
18.V+10
19.MICOUT
20.VE+5
21.GNDD
22.V+5
23.REMOCON
24.VFLDC+
25.FLDATA
26.VFLDC-
27.FLCK
28.VFDP
29.XFLCS
30.XFLRST
31.MOSEN
(XNP3132-B)
60
50
40
30
20
10
0
Y
130
120
110
100
90
80
70
60
50
40
30
20
10
0
X

F AHTS MOTION SENSOR ASSY


LF
R9601
R9602
C9603
C9601
1.GNDD
2.V+5
3.MOSEN
J9601
(XNP3132-B)
60
50
40
30
20
10
0
Y
270
260
250
240
X

AHTS LED ASSY

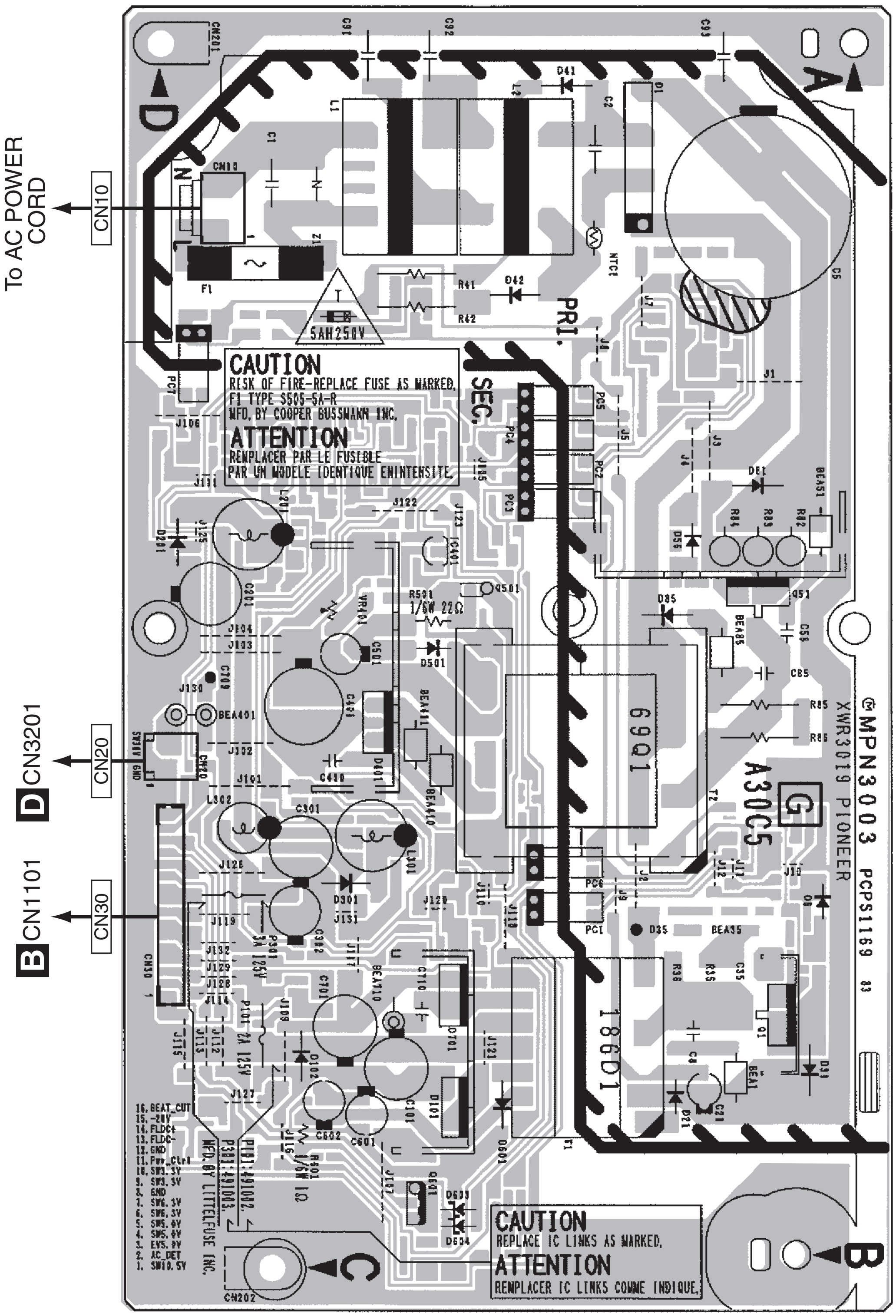

7.V+10
Q9501
Q9504
Q9505
R9502
R9504
R9503
C9501
Q9503
R9505
Q9502
R9501
D9502
R9506
LF
R9510
R9509
R9508
R9507
(XNP3132-B)
260
270
280
290
X
50
40
30
20
10
0
Y

E F G I

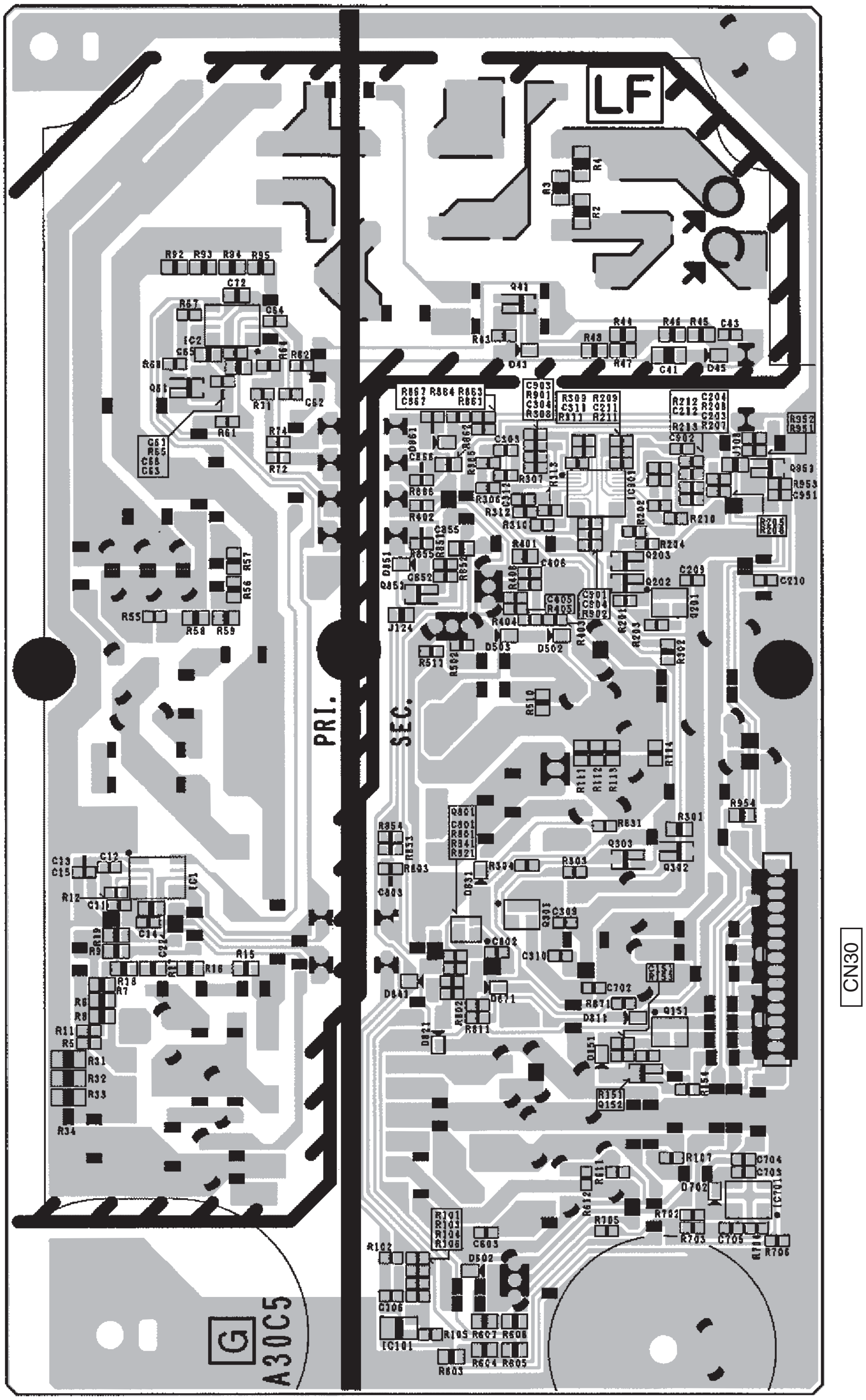
11.5 POWER SUPPLY UNIT

SIDE A **SIDE A**

J POWER SUPPLY UNIT

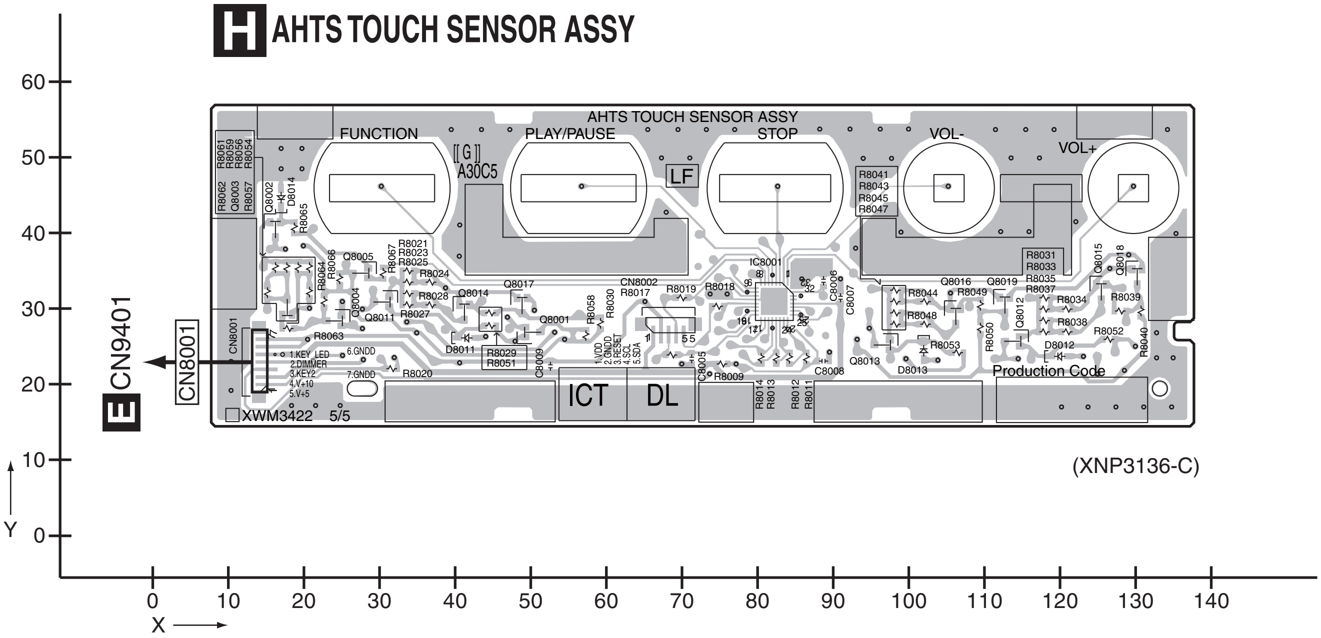

To AC POWER CORD
CN10
CN3201
D
CN20
CN1101
B
CN30
A
B
C
D
CN10
F1
5AH250V
PRI.
SEC.
CAUTION
RISK OF FIRE-REPLACE FUSE AS MARKED,
F1 TYPE S505-5A-R
MFD. BY COOPER BUSSMANN INC.
ATTENTION
REMPLACER PAR LE FUSIBLE
PAR UN MODELE IDENTIQUE ENINTENSITE.
R501
1/6W 22Ω
MPN3003
XWR3019 PIONEER
PCPS1169
A30C5
G
69Q1
186D1
P301
3A 125V
P101 2A 125V
P101:491002.
P301:491003.
MFD.BY LITTELFUSE INC.
16. BEAT_CUT
15. -28V
14. FLDC+
13. FLDC-
12. GND
11. Pwr_Ctrl
10. SW3.3V
9. SW3.3V
8. GND
7. SW6.3V
6. SW6.3V
5. SW5.6V
4. SW5.6V
3. EV5.6V
2. AC_DET
1. SW10.5V
CAUTION
REPLACE IC LINKS AS MARKED.
ATTENTION
REMPLACER IC LINKS COMME INDIQUE.
CN202
CN30

J POWER SUPPLY UNIT

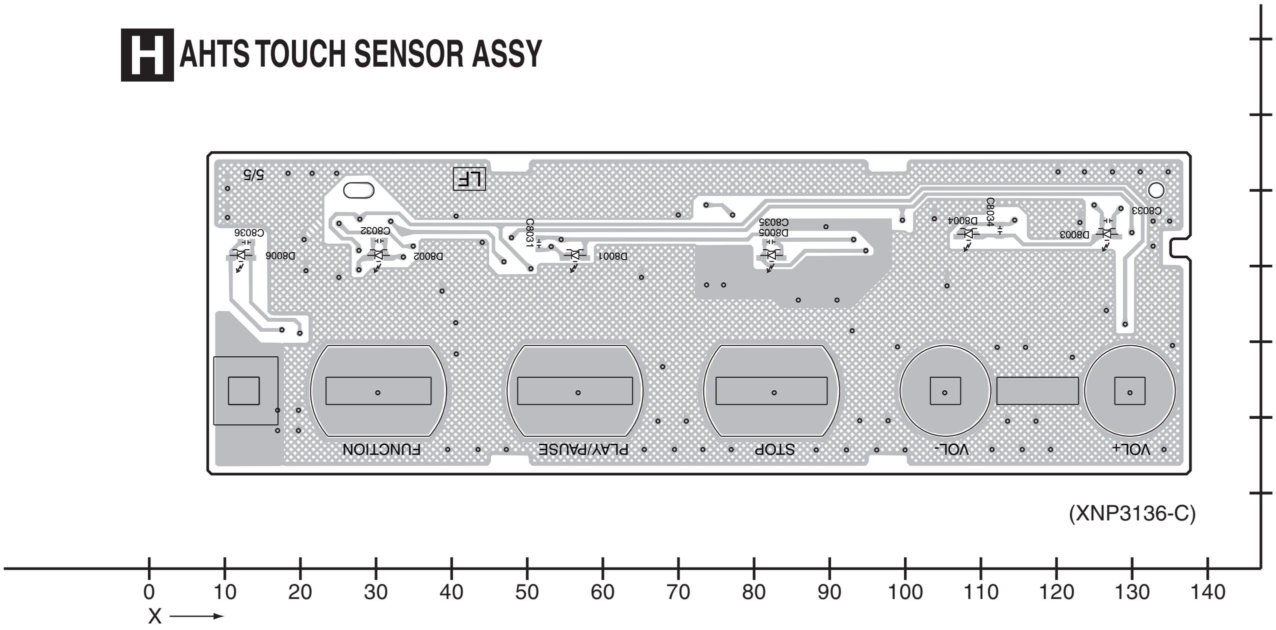

LF
R4
R3
R2
R92 R93 R94 R95
C72
R57
C64
IC2
C65
R61
R62
R58
Q51
R71
C52
R61
R74
R73
R72
C61
R65
C55
C63
R57
R56
R55
R58 R59
PRI.
SEC.
Q41
R63
D43
R48
R47
R44
R46 R45 C43
C41
D45
R867 R884 R863
C867 R861
C903
R901
C304
R308
R303 R209
C311 C211
R311 R211
R212 C204
C282 R208
C203
R213 R207
R952
R951
C902
J103
Q953
R953
C951
D861
R862
C103
C858
R306
R307
R313
IC301
R312
R310
R402
R202
R210
R205
R206
C855
R401
R204
Q203
R851
C406
C209
D851
C210
Q852
C852
R408
C405
R405
C301
C804
R302
Q202
Q201
J124
R404
D503
D502
R403
R201
R203
R511
R502
R302
R510
R111
R112
R113
R114
R954
R854
Q801
C801
R801
R841
R821
R831
R301
R833
Q303
Q302
R834
R303
D831
C803
C13
C15
C12
R12
C11
IC1
C14
R10
R9
C22
R17
R16
R15
R18
R7
R6
R8
R11
R5
R31
R32
R33
R34
C302
C309
C802
C310
C151
R151
C702
D841
D821
R802
R811
D871
R871
D811
Q151
D151
R154
R351
Q152
R107
C704
C703
R111
D702
IC701
R612
R705
R702
R101
R103
R104
R106
C603
R703
C705
R710
R706
R102
D502
C106
IC101
R105
R607
R608
R603
R604
R605
G
A30C5
CN30

11.6 AHTS TOUCH SENSOR ASSY

SIDE A **SIDE A**


H AHTS TOUCH SENSOR ASSY
AHTS TOUCH SENSOR ASSY
FUNCTION
PLAY/PAUSE
STOP
VOL-
VOL+
[[G]]
A30C5
LF
IC8001
CN8001
CN8002
CN9401
E
1.KEY_LED
2.DIMMER
3.KEY2
4.V+10
5.V+5
6.GNDD
7.GNDD
1.VDD
2.GNDD
3.RESET
4.SCL
5.SDA
ICT
DL
XWM3422 5/5
Production Code
R8061 R8059 R8056 R8054
R8062 Q8003 R8057 R8054
Q8002 D8014 R8065
R8064 R8066 Q8005 R8067 R8021 R8023 R8025 R8024 R8028 R8027
Q8004 Q8011 R8063 Q8014 Q8017 D8011 R8029 R8051 Q8001 C8009
R8020 R8058 R8030 R8017 R8019 R8018 C8005 R8009
R8014 R8013 R8012 R8011 C8006 C8007 C8008
R8041 R8043 R8045 R8047
R8044 R8048 Q8016 R8049 Q8019 R8053 D8013 Q8013
R8031 R8033 R8035 R8037 R8034 R8038 R8039 Q8015 Q8018 Q8012 R8050 D8012 R8052 R8040
(XNP3136-C)
Y
X
0
10
20
30
40
50
60
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140

SIDE B **SIDE B**


H AHTS TOUCH SENSOR ASSY
5/5
LF
C8036 D8006
C8032 D8002
C8031 D8001
C8035 D8005
C8034 D8004
C8033 D8003
FUNCTION
PLAY/PAUSE
STOP
VOL-
VOL+
(XNP3136-C)
Y
X
0
10
20
30
40
50
60
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140

12. PCB PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47 k ohm (tolerance is shown by J = 5%, and K = 10%).

560 Ω → 56×10^1 → 561 .... RD1/4PU $\boxed{5}\boxed{6}\boxed{1}$ J
47 kΩ → 47×10^3 → 473 .... RD1/4PU $\boxed{4}\boxed{7}\boxed{3}$ J
0.5 Ω → R50 .... RN2H $\boxed{R}\boxed{5}\boxed{0}$ K
1 Ω → 1R0 .... RS1P $\boxed{1}\boxed{R}\boxed{0}$ K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62 kΩ → 562×10^1 → 5621 .... RN1/4PC $\boxed{5}\boxed{6}\boxed{2}\boxed{1}$ F

- *Meaning of the figures and others in the parentheses in the parts list.*

Example) IC 301 is on the point (face A, 91 of x-axis, and 111 of y-axis) of the corresponding PC board.
IC 301 (A, 91, 111) IC NJM2068V

LIST OF ASSEMBLIES

Mark	No.	Description	Part No.
		1..4IN1 MOD ASSY	AWX9179
		1..AHTS-HTP AMP ASSY	XWK3368
NSP		1..AHTS TOUCH SENSOR ASSY	XWM3422
		1..AHTS IBD/KU COMPLEX ASSY	XWM3423
		2..AHTS DISPLAY ASSY	XWZ4345
		2..AHTS COMPONENT ASSY	XWZ4346
		2..AHTS MOTION SENSOR ASSY	XWZ4347
		2..AHTS LED ASSY	XWZ4348
		1..AHTS KU SYSMAIN ASSY	XWM3424
		2..AHTS OPT IN ASSY	XWZ4361
		2..AHTS KU SYSMAIN ASSY	XWZ4363
⚠		1..POWER SUPPLY UNIT	XWR3019
		1..FM/AM TUNER UNIT	AXX7250

A 4IN1 MOD ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	IC 1,2		PQ1LAX95MSPQ
	IC 61		NJM2886DL3-33
	IC 71		MD5001T
	IC 91		NJM2872BF05
	IC 101		AK4114VQ
	IC 121		BU9450KV
	IC 122		AAT4618IGV-0.5-1
	IC 171,181,771		TC74VHC157FTS1
	IC 191,331,881		TC74VHC08FTS1
	IC 201		DSPC56371AF180
	IC 202		TC7WH125FU
	IC 251		PDC184A8
	IC 261		TC7WHU04FU
	IC 271		ML87V5002
	IC 341,882		TC74VHCT08AFTS1
	IC 351		TC74VHCT541AFTS1
	IC 401		PDC180A8
	IC 501,502		STG3157CTR
	IC 601,603,605		S-24CS02AFT
	IC 602,604,606		TC7MB3257FK
	IC 611		CXB1444R
	IC 632		TC7WH157FU
	IC 651		SII9013CLU
	IC 701		SII9134CTU
	IC 801		PEG118A
	IC 861		AYW7204
	IC 891		NJM2872BF33
	IC 1101		BA5984FP
	IC 1201		MT1389EE/S-L
	IC 1202		K4S641632N-LC75
	IC 1203		AYW7224
	IC 1204		S-24CS64A0I
	IC 1401		MM1758XF
	IC 1601		TC7SH08FUS1
	IC 1711		MM1661JH
	Q 71,601,602,604		DTC114YUA
	Q 201		DTC124EUA
	Q 471		2SA1577
	Q 472		DTC143EUA
	Q 603		HN1K02FU
	Q 751		UMB1N
	Q 752,1481		DTC114YUA
	Q 1304,1801		2SC4081
	Q 1305		UM5K1N
	Q 1307,1308		HN1A01F
	Q 1802		HN1A01FU
	D 21,121,122		UDZS5R6(B)
	D 61		RB551V-30
	D 71		D1FM3
	D 601,602,1802		DAN202U
	D 701,1933		UDZS5R1(B)
	D 861		RB501V-40
	D 1101,1102		RR264M-400
	D 1761,1762		UDZS3R9(B)
	D 1801		UDZS4R7(B)
	D 1811		1SS352

MISCELLANEOUS

Mark	No.	Description	Part No.
	L 1,3	CHIP SOLID INDUCTOR	ATL7002
	L 71,611,651,652	CHIP BEADS	ATL7010
	L 72	POWER INDUCTOR(22U)	DTL1100
	L 101,102	CHIP SOLID INDUCTOR	QTL1013
	L 121,171	CHIP SOLID INDUCTOR	QTL1013
	L 122,202	CHIP SOLID INDUCTOR	ATL7002
	L 181,191	CHIP SOLID INDUCTOR	QTL1013
	L 201,204	CHIP SOLID INDUCTOR	QTL1013
	L 203	CHIP SOLID INDUCTOR	ATL7002
	L 251,261	CHIP SOLID INDUCTOR	QTL1013
	L 271,331	CHIP SOLID INDUCTOR	QTL1013
	L 341,351	CHIP SOLID INDUCTOR	QTL1013
	L 401,481	CHIP SOLID INDUCTOR	QTL1013
	L 402	COIL	VTH1043
	L 653-655	CHIP SOLID INDUCTOR	QTL1013
	L 656,657,701-705	CHIP BEADS	ATL7010
	L 751-754	COIL	ATH7022
	L 771,901	CHIP SOLID INDUCTOR	QTL1013
	L 801	CHIP BEADS	ATL7010
	L 1751	INDUCTOR	CTF1395
	L 1761	COIL	VTH1047
	L 1901	INDUCTOR	CTF1334
	JA 101	JACK	VKB1244
	JA 121	4P SOCKET	AKP7201
	JA 601,602,701	HDMI CONNECTOR	AKP7225
	X 121	CRYSTAL RESONATOR (45.1584 MHz)	ASS7065
	X 261	CRYSTAL RESONATOR (24.576 MHz)	XSS3003
	X 401	CRYSTAL OSCILLATOR (12.000 MHz)	CSS1614
	X 481	CRYSTAL OSCILLATOR (32.768 kHz)	ASS1172
	X 651	CRYSTAL RESONATOR (28.322 MHz)	ASS7085
	X 801	CERAMIC RESONATOR (15.7 MHz)	XSS3004
	X 1201	CRYSTAL RESONATOR (27 MHz)	VSS1172
	CN 1	13P CONNECTOR	VKN1417
	CN 2	21P CONNECTOR	VKN1425
	CN 3	35P CONNECTOR	VKN1439
	CN 4	14P CONNECTOR	VKN1418
	CN 5,491	5P CONNECTOR	VKN1374
	CN 201	7P CONNECTOR	VKN1411
	CN 1204	CONNECTOR	AKM1290
	CN 1963	31P CONNECTOR	VKN1435
	CN 1964	06P CONNECTOR	VKN1574
	CN 1965	05P CONNECTOR	VKN1573
	CN 1966	CONNECTOR	VKN2045
	CN 1967	17P CONNECTOR	VKN1577
	JH 401	PCB BINDER	VEF1040

RESISTORS

Mark	No.	Description	Part No.
	R 21		RS1/16SS2002F
	R 22,24,74,1103		RS1/16SS1202F
	R 23		RS1/16SS1000F
	R 31,42,44,45		RAB4CQ104J
	R 48,318,319		RAB4CQ104J
	R 51,62,64,92		RS1/16S0R0J
	R 63,77,80,1208		RS1/10S0R0J
	R 75		RS1/16SS5100F
	R 76,1104		RS1/16SS1002F
	R 103,108,139,145		RAB4CQ101J
	R 110,891,1636		RS1/16S0R0J
	R 111		RS1/16SS1802F
	R 146,171,173,174		RAB4CQ101J
	R 148		RAB4CQ223J
	R 172,182,226,229		RAB4CQ470J
	R 181,183,184,202		RAB4CQ101J
	R 191-193,199		RS1/16S101J
	R 203		RAB4CQ103J
	R 271,273,353,354		RAB4CQ101J
	R 272,663		RAB4CQ470J
	R 279,681-685,687		RAB4CQ220J
	R 488		RS1/16SS1003F
	R 612		RS1/16SS4701F
	R 668,669,721		RAB4CQ473J
	R 688		RAB4CQ220J
	R 704		RS1/16SS6800F
	R 723-728		RAB4CQ473J
	R 1113,1114,1201		RS1/16SS1202F
	R 1123,1133		RS1/16SS3302F
	R 1124,1134		RS1/16SS2702F
	R 1153,1156,1157		RS1/8SQ3R3J
	R 1205,1206		RS1/16SS1502F
	R 1209,1281,1634,1635		RS1/10S0R0J
	R 1221,1225		RAB4CQ330J
	R 1279		RS1/16SS2201F
	R 1411-1416		RS1/16SS1500F
	R 1617		RS1/16SS2701F
	R 1715,1752,1902		RS1/10S0R0J
	Other Resistors		RS1/16SS###J

CAPACITORS

Mark	No.	Description	Part No.
	C 7,78,107,173		CKSSYB102K50
	C 21,51,127,230		CEVW101M16
	C 22-25,61,138		CKSRYB105K16
	C 52,91,861,1411		CKSRYB104K16
	C 62,93,893,1713		CKSQYB225K10
	C 71-73,80,82		DCH1201
	C 74,92,113,220		CKSSYB103K16
	C 75		CCSSCH121J50
	C 77,1258,1259		CKSSYB473K16
	C 79,1712		CCSSCH471J16
	C 102,105,106,109		CKSSYB104K10
	C 103,108,121		CEVW470M6R3
	C 104,110,192,261		CCSRCH471J50
	C 111		CKSRYB474K10
	C 122,172,182,203		CKSSYB471K50
	C 123-126,128,171		CKSSYB104K10
	C 131,132,692,1251		CCSSCH100D50
	C 181,191,202,204		CKSSYB104K10
	C 206,208,210,215		CKSSYB104K10
	C 209,214,216,218		CKSSYB471K50
	C 217,219,222,224		CKSSYB104K10
	C 221,225,411-414		CKSSYB471K50
	C 226,228,232,252		CKSSYB104K10
	C 229		CEVW101M4
	C 262,271,273,275		CKSSYB104K10
	C 264,265		CCSSCH8R0D50
	C 277,332,342,352		CKSSYB104K10
	C 401,484,802,805		CCSSCH101J50
	C 402,403,691		CCSSCH120J50
	C 404,405,408,410		CKSSYB104K10
	C 406,407,482,483		CCSSCH5R0C50
	C 409,612,801,1103		CEVW101M16

Mark	No.	Description	Part No.
C	420		CEVW2R2M50
C	421,1262,1605		CEVW4R7M16
C	422		CEVW1R0M50
C	472,613,654,655		CKSRYB105K16
C	481,485,501,502		CKSSYB104K10
C	486		CKSSYB471K50
C	601,602,651,656		DCH1201
C	603-608,611		CKSSYB104K10
C	614-624,632		CKSSYB104K10
C	652,653,702,704		CKSQYB106K6R3
C	657,672,679,712		CKSRYB105K16
C	661-666,668-671		CKSSYB104K10
C	667,678,713,803		CKSSYB103K16
C	673-677,680-683		CKSSYB104K10
C	701,703		DCH1201
C	705		CKSQYB106K6R3
C	711,714,716,718		CKSSYB104K10
C	715,717,719,723		CKSRYB105K16
C	720-722,751,771		CKSSYB104K10
C	724		CKSRYB105K16
C	731-738		VCG1066
C	804,806,807,862		CKSSYB104K10
C	808,1614		CCSSCH101J50
C	881,882,891		CKSSYB104K10
C	892,1226,1240		CKSSYB103K16
C	1151,1200,1204,1205		CKSSYB104K16
C	1152,1153,1210		CKSSYB222K50
C	1201,1202,1223,1237		CEVW221M4
C	1203,1206,1215,1309		CEVW470M16
C	1207,1208,1213,1216		CKSSYB104K16
C	1209		CKSSYB153K16
C	1211,1212		CCSSCH271J50
C	1217,1220,1224,1225		CKSSYB104K16
C	1227		CCSSCH221J50
C	1228-1234,1239,1243		CKSSYB104K16
C	1241,1602,1607,1952		CEVW100M16
C	1242		CKSSYB152K50
C	1244,1246,1247,1250		CKSSYB104K16
C	1245,1282,1289		CKSRYB105K10
C	1252		CCSSCH100D50
C	1254,1267,1295,1608		CKSSYB102K50
C	1260,1261,1264,1266		CKSSYB104K16
C	1265		CCSSCH220J50
C	1268,1271-1273,1290		CKSSYB104K16
C	1269		CKSSYB333K10
C	1281,1618		CEVW221M4
C	1283-1288		CKSSYB103K16
C	1310,1616,1627		CEVW470M16
C	1343-1347,1412-1414		CKSRYB105K10
C	1371,1372,1402,1405		CKSSYB104K16
C	1373,1401,1404		CEVW101M16
C	1406,1601,1603,1606		CKSSYB104K16
C	1415,1416		CKSRYB104K16
C	1611		CKSSYB562K25
C	1612,1613,1617		CKSSYB104K16
C	1619-1621,1623,1625		CKSSYB104K16
C	1622,1624,1626		CKSSYB102K50
C	1628,1801,1951		CKSSYB104K16
C	1711		CKSRYB105K10

B AHTS KU SYSMAIN ASSY

MISCELLANEOUS

Mark	No.	Description	Part No.
IC	1001	(A,143,62) SYSTEM CONTROL MICON	AYW7268
IC	1065	(A,113,53) RESET IC	PST3228
IC	1070	(A,144,39) EEPROM	S-93C46BD0I-J8T1
IC	1080	(A,137,40) L-MOS AND GATE	TC7SET08FUS1
IC	1085	(A,154,35) DDC BUS BUFFER	LTC4307IMS8-1
IC	1090	(A,140,94) IC	TC74VHCT125AFTS1
⚠ IC	1101	(A,152,170) REGULATOR IC	NJM2845DL1-05
IC	1102	(A,166,179) LOAD SWITCHING	AAT4618IGV-0.5-1
⚠ IC	1111	(A,61,142) REGULATOR (ADJ.)	MM1665XH
IC	1141	(A,170,81) REGULATOR IC	NJM2872BF33
IC	1161	(A,170,74) REGULATOR IC	NJM2872BF25
IC	2001	(A,84,122) AMP MICON	AYW7210
IC	2101	(A,84,172) IC	NJM2100M
IC	2151	(A,105,167) IC	PCM1742KE
IC	2201	(A,104,94) IC	TC7WH125FU
IC	2202	(A,104,87) IC	TC7WH32FU
IC	2203	(A,98,89) IC	TC7SH02FUS1
IC	3001	(A,84,73) XM/SIRIUS MICON	PEG488A8
IC	3002	(A,90,48) L-MOS AND GATE	TC7SET08FUS1
IC	3003	(A,102,48) FLASH ROM IC	SST25V512ACS
IC	3051	(A,51,51) IC	TC74VHCT125AFTS1
IC	3052	(A,62,51) IC	TC74VHCT125AFTS1
IC	3053	(A,51,38) IC	TC74VHCT125AFTS1
IC	3054	(A,61,37) IC	TC7WH125FU
IC	4001	(A,128,132) DVD SUB MICON	PDC177A8
⚠ IC	4002	(A,64,136) PROTECTOR(1.6A)	AEK7066
⚠ IC	4003	(A,160,200) PROTECTOR(1.6A)	AEK7066
IC	4101	(A,60,158) IC	TC7SH08FUS1
IC	4102	(A,66,158) IC	TC7SH08FUS1
IC	5001	(A,136,212) IC	TC4052BFN
IC	5002	(A,136,192) IC	TC4052BFN
IC	5101	(A,122,195) AD CONVERTER IC	AK5358AET
IC	5202	(A,40,62) IC	TC7SH08FUS1
Q	1075	(A,130,42) MOS FET	2SK2034
Q	1081	(A,164,49) TRANSISTOR	RT1N241M
Q	1121	(A,175,91) TRANSISTOR	2SA1577
Q	1122	(A,171,98) TRANSISTOR	2SC4154
Q	1171	(A,178,75) TRANSISTOR(SC-70)	2SA1602A
Q	1172	(A,178,70) TRANSISTOR	2SC4154
Q	1201	(A,171,117) TRANSISTOR(SC-70)	2SA1602A
⚠ Q	1202	(A,171,122) CHIP TRANSISTOR	HN1C01FU
Q	1211	(A,155,98) TRANSISTOR(SC-70)	2SA1602A
Q	1212	(A,150,92) TRANSISTOR	RT1N241M
Q	2001	(A,87,92) DIGITAL TR(SC-70)	RT1N431M
Q	2002	(A,43,132) TRANSISTOR	RT1N241M
Q	2003	(A,43,127) TRANSISTOR	RT1N241M
Q	2102	(A,89,172) TRANSISTOR	IMX9
Q	2151	(A,106,179) TRANSISTOR	2SC4081
Q	2152	(A,103,179) TRANSISTOR	2SA1576A
⚠ Q	3071	(A,61,202) CHIP TRANSISTOR	HN1C01FU
Q	4011	(A,116,139) MOS FET	2SK2034
Q	4031	(A,145,136) NMOS FET TRANSISTOR	UM6K1N
Q	5021	(A,144,212) CHIP TRANSISTOR	HN1A01FU
Q	5401	(A,37,113) TRANSISTOR(SC-70)	2SA1602A
Q	5402	(A,34,123) TRANSISTOR	RT1N241M

Mark	No.	Description	Part No.
Q	5601 (A,146,22)	TRANSISTOR	IMX9
Q	5602 (A,135,29)	TRANSISTOR	IMX9
Q	5603 (A,119,30)	TRANSISTOR	RT1N241M
Q	5701 (A,67,27)	TRANSISTOR	RT1N241M
Q	5702 (A,63,27)	TRANSISTOR	RT1N241M
D	1085 (A,152,42)	DIODE	RB751V-40
D	1201 (A,175,119)	DIODE	1SS352
D	1211 (A,157,90)	DIODE	1SS352
D	1212 (A,155,90)	DIODE	1SS352
D	1213 (A,161,89)	DIODE	1SS352
D	1214 (A,160,92)	DIODE	MC2846-11
D	2001 (A,93,93)	DIODE	1SS352
D	2002 (A,93,95)	DIODE	1SS352
D	2151 (A,100,179)	DIODE	DAP202U
D	5001 (A,134,198)	DIODE	UDZS3R9(B)
D	5002 (A,139,198)	DIODE	UDZS3R9(B)
D	5201 (A,35,84)	DIODE	UDZS6R2(B)
D	5202 (A,35,86)	DIODE	UDZS6R2(B)
D	5203 (A,35,89)	DIODE	UDZS6R2(B)
D	5204 (A,35,91)	DIODE	UDZS6R2(B)
D	5205 (A,31,71)	DIODE	UDZS8R2(B)
D	5206 (A,31,66)	DIODE	UDZS8R2(B)
D	5207 (A,31,75)	DIODE	UDZS8R2(B)
D	5401 (A,37,102)	DIODE	1SS352
D	5402 (A,34,111)	DIODE	1SS352
D	5403 (A,34,119)	DIODE	1SS352
L	1101 (A,163,175)	CHIP SOLID INDUCTOR	ATL7002
L	2151 (A,123,170)	CHIP SOLID INDUCTOR	QTL1013
L	3001 (A,63,72)	CHIP SOLID INDUCTOR	QTL1013
L	4001 (A,132,107)	CHIP SOLID INDUCTOR	QTL1013
L	5601 (A,129,18)	INDUCTOR	CTF1346
L	5602 (A,129,25)	INDUCTOR	CTF1346
L	5851 (A,57,217)	INDUCTOR	CTF1389
L	5852 (A,57,213)	INDUCTOR	CTF1389
JA	5001 (A,15,191)	2P RCA JACK	XKB3070
JA	5201 (A,15,77)	SOCKET	BKP1127
JA	5401 (A,18,103)	JACK	RKN1004
JA	5501 (A,18,132)	JACK	RKN1004
JA	5801 (A,15,225)	JACK	VKB1178
KN	1102 (A,15,115)	SCREW PLATE	VNE1948
KN	1103 (A,15,46)	SCREW PLATE	VNE1948
X	1001 (A,121,59)	CERAMIC RESONATOR (20 MHz)	VSS1186
X	2001 (A,62,118)	CERAMIC RESONATOR (20 MHz)	VSS1186
X	3001 (A,68,74)	CERAMIC RESONATOR (15.7 MHz)	XSS3004
X	4001 (A,128,118)	CERAMIC RESONATOR (12 MHz)	VSS1216
CN	1001 (A,112,64)	7P CONNECTOR	VKN1411
CN	1002 (A,180,201)	7P CONNECTOR	52044-0745
CN	1003 (A,180,151)	31P CONNECTOR	52044-3145
CN	1101 (A,180,87)	L-PLUG(16P)	KM200NA16L
CN	2001 (A,53,123)	7P CONNECTOR	VKN1411
CN	3001 (A,57,65)	10P CONNECTOR	VKN1414
CN	3051 (A,19,91)	07P CONNECTOR	RKN1048
CN	3071 (A,69,195)	CONNECTOR	9604S-11C
CN	4001 (A,115,116)	5P CONNECTOR	VKN1374
CN	4101 (A,85,154)	21P CONNECTOR	VKN1425
CN	4102 (A,47,154)	13P CONNECTOR	VKN1417
CN	4103 (A,133,154)	35P CONNECTOR	VKN1439
CN	4104 (A,158,232)	31P CONNECTOR	VKN1291
CN	4106 (A,89,232)	17P CONNECTOR	VKN1277
CN	4107 (A,141,175)	14P CONNECTOR	VKN1245

Mark	No.	Description	Part No.
CN	5701 (A,93,16)	17P CONNECTOR	52044-1745
CN	5702 (A,57,16)	17P CONNECTOR	52044-1745
CN	5852	CONNECTOR	9604S-07C
	5	(A,164,187) PCB BINDER	VEF1040
	3	(A,85,220) PCB BINDER	VEF1040
	2	(A,70,167) PCB BINDER	VEF1040
	1	(A,36,181) PCB BINDER	VEF1040
	4	(A,111,187) PCB BINDER	VEF1040

RESISTORS

R	1001 (A,128,47)		RS1/16S101J
R	1002 (A,131,47)		RAB4C101J
R	1003 (A,136,44)		RS1/16S101J
R	1004 (A,138,44)		RS1/16S101J
R	1005 (A,141,47)		RAB4C101J
R	1006 (A,144,47)		RS1/16S101J
R	1007 (A,147,47)		RAB4C101J
R	1008 (A,151,47)		RAB4C101J
R	1009 (A,155,47)		RAB4C101J
R	1010 (A,158,47)		RS1/16S101J
R	1011 (A,159,47)		RS1/16S103J
R	1012 (A,161,47)		RS1/16S103J
R	1013 (A,160,54)		RAB4C101J
R	1014 (A,160,58)		RAB4C101J
R	1015 (A,160,62)		RAB4C101J
R	1016 (A,160,66)		RAB4C101J
R	1017 (A,160,69)		RS1/16S101J
R	1018 (A,157,84)		RS1/16S105J
R	1019 (A,160,77)		RS1/16S393J
R	1020 (A,160,74)		RS1/16S333J
R	1022 (A,151,77)		RS1/16S473J
R	1024 (A,151,85)		RS1/16S103J
R	1025 (A,155,81)		RAB4C101J
R	1026 (A,150,77)		RS1/16S101J
R	1027 (A,149,81)		RS1/16S101J
R	1028 (A,148,77)		RS1/16S101J
R	1029 (A,145,81)		RAB4C101J
R	1030 (A,143,77)		RS1/16S101J
R	1031 (A,142,81)		RS1/16S101J
R	1032 (A,141,77)		RS1/16S101J
R	1033 (A,140,81)		RS1/16S102J
R	1034 (A,137,81)		RAB4C101J
R	1035 (A,132,81)		RAB4C101J
R	1036 (A,128,81)		RAB4C101J
R	1038 (A,123,76)		RAB4C101J
R	1039 (A,123,73)		RS1/16S101J
R	1040 (A,123,71)		RS1/16S101J
R	1041 (A,123,70)		RS1/16S102J
R	1042 (A,123,68)		RS1/16S101J
R	1043 (A,123,67)		RS1/16S101J
R	1044 (A,123,65)		RS1/16S102J
R	1045 (A,123,64)		RS1/16S102J
R	1046 (A,126,63)		RS1/16S101J
R	1047 (A,125,60)		RS1/16S0R0J
R	1049 (A,125,58)		RS1/16S0R0J
R	1060 (A,110,70)		RS1/16S472J
R	1061 (A,113,70)		RS1/16S472J
R	1065 (A,109,56)		RS1/16S102J
R	1067 (A,112,60)		RS1/16S103J
R	1070 (A,148,43)		RS1/16S472J

Mark	No.	Description	Part No.
R	1071 (A,140,39)		RS1/16S472J
R	1075 (A,131,40)		RS1/16S100J
R	1076 (A,134,44)		RS1/16S102J
R	1085 (A,152,40)		RS1/16S273J
R	1086 (A,158,38)		RS1/16S103J
R	1087 (A,153,38)		RS1/16S473J
R	1088 (A,160,38)		RS1/16S103J
R	1101 (A,162,179)		RS1/16S104J
R	1102 (A,163,179)		RS1/16S221J
R	1112 (A,58,138)		RS1/16S2701F
R	1113 (A,55,140)	CHIP RESISTOR	RS1/16S4300F
R	1114 (A,55,144)		RS1/16S1001F
R	1121 (A,175,94)		RS1/16S473J
R	1122 (A,175,96)		RS1/10S561J
R	1123 (A,166,101)		RS1/16S223J
R	1131 (A,169,108)		RS1/16S0R0J
R	1171 (A,181,75)		RS1/16S473J
R	1172 (A,178,72)		RS1/16S392J
R	1173 (A,178,67)		RS1/16S472J
R	1201 (A,171,120)		RS1/16S223J
R	1202 (A,171,125)		RS1/16S223J
R	1203 (A,175,117)		RS1/16S151J
R	1204 (A,167,122)		RS1/16S223J
R	1205 (A,176,123)		RS1/16S102J
R	1206 (A,176,121)		RS1/16S223J
R	1211 (A,160,97)		RS1/16S392J
R	1212 (A,153,92)		RS1/16S182J
R	1213 (A,157,96)		RS1/16S393J
R	1214 (A,162,97)		RS1/16S332J
R	1215 (A,158,98)		RS1/16S473J
R	2001 (A,70,102)		RS1/16S103J
R	2002 (A,71,102)		RS1/16S103J
R	2003 (A,71,107)		RAB4C101J
R	2005 (A,77,107)		RAB4C101J
R	2006 (A,81,103)		RS1/16S101J
R	2008 (A,82,103)		RS1/16S101J
R	2009 (A,85,103)		RS1/16S104J
R	2010 (A,86,107)		RS1/16S103J
R	2011 (A,89,102)		RS1/16S101J
R	2012 (A,91,102)		RS1/16S101J
R	2013 (A,88,107)		RS1/16S101J
R	2014 (A,85,92)		RS1/16S182J
R	2015 (A,91,107)		RAB4C101J
R	2016 (A,96,107)		RAB4C101J
R	2017 (A,99,107)		RS1/16S101J
R	2018 (A,102,120)		RS1/16S474J
R	2019 (A,103,113)		RAB4C101J
R	2020 (A,103,116)		RS1/16S101J
R	2021 (A,103,120)		RS1/16S101J
R	2022 (A,101,123)		RS1/16S101J
R	2023 (A,101,124)		RS1/16S101J
R	2024 (A,102,128)		RAB4C101J
R	2025 (A,102,131)		RS1/16S101J
R	2026 (A,99,127)		RS1/16S104J
R	2028 (A,97,139)		RS1/16S103J
R	2029 (A,91,138)		RAB4C101J
R	2030 (A,87,138)		RAB4C101J
R	2031 (A,85,141)		RS1/16S101J
R	2032 (A,83,141)		RS1/16S101J

Mark	No.	Description	Part No.
R	2033 (A,81,138)		RAB4C101J
R	2034 (A,77,138)		RAB4C101J
R	2035 (A,81,143)		RS1/16S103J
R	2036 (A,80,143)		RS1/16S103J
R	2037 (A,72,138)		RAB4C101J
R	2038 (A,64,132)		RS1/16S104J
R	2039 (A,64,129)		RAB4C101J
R	2040 (A,64,126)		RS1/16S101J
R	2041 (A,61,126)		RS1/16S101J
R	2042 (A,61,123)		RS1/16S102J
R	2043 (A,64,122)		RS1/16S102J
R	2044 (A,61,121)		RS1/16S101J
R	2046 (A,66,119)		RS1/16S0R0J
R	2047 (A,66,117)		RS1/16S0R0J
R	2048 (A,54,117)		RS1/16S103J
R	2049 (A,90,92)		RS1/16S472J
R	2050 (A,40,132)		RS1/16S182J
R	2051 (A,40,127)		RS1/16S182J
R	2060 (A,56,117)		RS1/16S472J
R	2061 (A,50,117)		RS1/16S472J
R	2101 (A,88,178)		RS1/16S103J
R	2102 (A,89,167)		RS1/16S103J
R	2103 (A,84,179)		RS1/16S104J
R	2104 (A,84,165)		RS1/16S104J
R	2107 (A,82,179)		RS1/16S0R0J
R	2108 (A,81,166)		RS1/16S0R0J
R	2109 (A,82,182)		RS1/16S104J
R	2110 (A,81,163)		RS1/16S104J
R	2111 (A,84,183)		RS1/16S471J
R	2112 (A,84,161)		RS1/16S471J
R	2113 (A,89,176)		RS1/16S222J
R	2114 (A,89,168)		RS1/16S222J
R	2115 (A,90,184)		RS1/16S473J
R	2116 (A,90,164)		RS1/16S473J
R	2152 (A,103,160)		RAB4C101J
R	2153 (A,100,174)		RS1/16S220J
R	2154 (A,102,174)		RS1/16S470J
R	2155 (A,103,174)		RS1/16S470J
R	2156 (A,105,174)		RS1/16S470J
R	2157 (A,106,174)		RS1/16S103J
R	2158 (A,109,179)		RS1/16S102J
R	2159 (A,103,182)		RS1/16S103J
R	2201 (A,109,94)		RS1/16S104J
R	2202 (A,99,94)		RS1/16S104J
R	3001 (A,72,80)		RS1/16S101J
R	3002 (A,71,80)		RS1/16S472J
R	3003 (A,68,79)		RS1/16S101J
R	3004 (A,70,67)		RS1/16S473J
R	3005 (A,72,75)		RS1/16S0R0J
R	3007 (A,70,64)		RAB4C101J
R	3008 (A,72,62)		RS1/16S473J
R	3009 (A,76,59)		RS1/16S473J
R	3010 (A,76,55)		RAB4C101J
R	3011 (A,81,55)		RAB4C101J
R	3012 (A,83,59)		RS1/16S473J
R	3014 (A,86,59)		RS1/16S473J
R	3015 (A,88,59)		RS1/16S101J
R	3016 (A,91,59)		RAB4C101J
R	3017 (A,92,48)		RS1/16S104J

Mark	No.	Description	Part No.
R	3018 (A,98,63)		RAB4C101J
R	3019 (A,98,68)		RAB4C101J
R	3020 (A,98,71)		RS1/16S101J
R	3021 (A,98,75)		RS1/16S101J
R	3022 (A,98,78)		RS1/16S101J
R	3023 (A,74,85)		RAB4C101J
R	3031 (A,96,46)		RS1/16S102J
R	3032 (A,97,46)		RS1/16S182J
R	3033 (A,104,42)		RS1/16S102J
R	3034 (A,102,42)		RS1/16S182J
R	3035 (A,104,55)		RS1/16S102J
R	3036 (A,105,55)		RS1/16S182J
R	3037 (A,102,55)		RS1/16S102J
R	3038 (A,101,55)		RS1/16S182J
R	3039 (A,99,55)		RS1/16S102J
R	3040 (A,98,55)		RS1/16S182J
R	3051 (A,27,93)		RS1/16S101J
R	3052 (A,27,95)		RS1/16S101J
R	3053 (A,28,90)		RS1/16S103J
R	3054 (A,27,96)		RS1/16S101J
R	3055 (A,58,51)		RS1/16S104J
R	3058 (A,59,32)		RS1/16S104J
R	3059 (A,48,58)		RS1/16S104J
R	3060 (A,52,59)		RS1/16S104J
R	3062 (A,47,51)		RS1/16S104J
R	3063 (A,47,38)		RS1/16S104J
R	3074 (A,64,168)		RS1/16S473J
R	3075 (A,61,168)		RS1/16S473J
R	3076 (A,61,186)		RS1/16S0R0J
R	3077 (A,59,186)		RS1/16S0R0J
R	4001 (A,139,129)		RAB4C101J
R	4002 (A,140,133)		RS1/16S101J
R	4003 (A,134,142)		RS1/16S102J
R	4004 (A,124,141)		RS1/16S101J
R	4005 (A,143,133)		RS1/16S103J
R	4006 (A,143,129)		RS1/16S103J
R	4007 (A,117,126)	RESISTOR ARRAY	RAB4C104J
R	4008 (A,117,131)		RAB4C101J
R	4009 (A,121,121)		RS1/16S471J
R	4010 (A,121,118)		RS1/16S332J
R	4011 (A,127,121)		RS1/16S105J
R	4012 (A,130,121)		RS1/16S0R0J
R	4013 (A,136,123)		RS1/16S101J
R	4014 (A,138,123)		RS1/16S101J
R	4015 (A,135,123)		RS1/16S103J
R	4016 (A,120,139)		RS1/16S473J
R	4031 (A,148,136)		RS1/16S100J
R	4101 (A,60,155)		RS1/16S0R0J
R	4102 (A,62,161)		RS1/16S0R0J
R	4104 (A,66,155)		RS1/16S0R0J
R	4105 (A,68,161)		RS1/16S0R0J
R	4108 (A,64,155)		RS1/16S330J
R	4110 (A,70,155)		RS1/16S101J
R	5001 (A,145,198)		RS1/16S473J
R	5004 (A,113,224)		RS1/16S223J
R	5005 (A,113,217)		RS1/16S223J
R	5008 (A,36,193)		RS1/16S331J
R	5009 (A,36,189)		RS1/16S331J
R	5010 (A,51,191)		RS1/16S223J

Mark	No.	Description	Part No.
R	5011 (A,51,185)		RS1/16S223J
R	5012 (A,51,194)		RS1/16S223J
R	5013 (A,51,188)		RS1/16S223J
R	5015 (A,133,218)		RS1/16S473J
R	5016 (A,144,192)	RESISTOR ARRAY	RAB4C104J
R	5021 (A,136,218)		RS1/16S102J
R	5022 (A,134,206)		RS1/16S102J
R	5023 (A,141,218)		RS1/16S224J
R	5024 (A,138,206)		RS1/16S224J
R	5025 (A,145,216)		RS1/16S153J
R	5026 (A,144,208)		RS1/16S153J
R	5027 (A,146,216)		RS1/16S102J
R	5028 (A,146,208)		RS1/16S102J
R	5103 (A,127,188)		RS1/16S182J
R	5104 (A,122,188)		RS1/16S470J
R	5105 (A,121,188)		RS1/16S220J
R	5106 (A,124,188)		RS1/16S332J
R	5107 (A,119,188)		RS1/16S470J
R	5108 (A,118,188)		RS1/16S470J
R	5203 (A,38,83)		RS1/16S473J
R	5204 (A,38,92)		RS1/16S473J
R	5205 (A,39,83)		RS1/16S331J
R	5206 (A,39,92)		RS1/16S331J
R	5217 (A,46,84)		RS1/16S223J
R	5218 (A,46,93)		RS1/16S223J
R	5219 (A,46,82)		RS1/16S223J
R	5220 (A,46,94)		RS1/16S223J
R	5222 (A,35,66)		RS1/16S104J
R	5223 (A,36,66)		RS1/16S101J
R	5224 (A,35,71)		RS1/16S101J
R	5225 (A,35,75)		RS1/16S101J
R	5401 (A,38,106)		RS1/16S104J
R	5402 (A,38,109)		RS1/16S104J
R	5403 (A,36,109)		RS1/16S472J
R	5404 (A,37,116)		RS1/16S103J
R	5405 (A,37,117)		RS1/16S102J
R	5406 (A,37,119)		RS1/16S102J
R	5601 (A,139,20)		RS1/10S680J
R	5602 (A,139,18)		RS1/10S680J
R	5603 (A,139,22)		RS1/10S680J
R	5604 (A,139,24)		RS1/10S680J
R	5605 (A,134,18)		RS1/10S680J
R	5606 (A,134,20)		RS1/10S680J
R	5607 (A,129,28)		RS1/16S222J
R	5608 (A,129,30)		RS1/16S222J
R	5609 (A,129,31)		RS1/16S222J
R	5610 (A,129,33)		RS1/16S222J
R	5611 (A,134,22)		RS1/10S680J
R	5612 (A,134,24)		RS1/10S680J
R	5613 (A,129,20)		RS1/16S472J
R	5614 (A,129,23)		RS1/16S472J
R	5702 (A,96,27)		RS1/16S105J
R	5703 (A,94,27)		RS1/16S105J
R	5704 (A,76,25)		RAB4C470J
R	5705 (A,67,24)		RS1/16S103J
R	5706 (A,63,24)		RS1/16S103J
R	5707 (A,58,25)		RS1/16S470J
R	5801 (A,37,223)		RS1/16S103J
R	5803 (A,36,214)		RS1/10S75R0F

Mark	No.	Description	Part No.
R	5805 (A,36,219)		RS1/10S75R0F
R	5807 (A,31,214)		RS1/10S75R0F

CAPACITORS

Mark	No.	Description	Part No.
C	1001 (A,122,47)		CEAT101M10
C	1002 (A,128,55)		CKSRYB103K25
C	1003 (A,136,47)		CKSRYB103K25
C	1004 (A,138,47)		CKSRYB103K25
C	1005 (A,162,47)		CKSRYB102K50
C	1006 (A,157,71)		CKSRYB103K25
C	1007 (A,157,85)		CKSRYB103K25
C	1008 (A,158,74)		CKSRYB103K25
C	1009 (A,154,77)		CKSRYB103K25
C	1010 (A,153,77)		CKSRYB103K25
C	1011 (A,154,85)		CKSRYB103K25
C	1012 (A,128,77)		CKSRYB103K25
C	1013 (A,127,73)		CKSRYB103K25
C	1014 (A,128,73)		CKSRYB103K25
C	1015 (A,126,77)		CKSRYB103K25
C	1016 (A,122,53)		CEAL1R0M50
C	1017 (A,176,135)	ELECT. CAPACITOR	CEAT101M35
C	1066 (A,116,60)		CKSRYB103K25
C	1070 (A,148,39)		CKSRYB104K16
C	1080 (A,134,40)		CKSRYB103K25
C	1085 (A,154,32)		CKSRYB104K16
C	1090 (A,136,94)		CKSRYB104K16
C	1101 (A,169,179)		CKSRYB104K16
C	1102 (A,166,175)		CKSRYB105K16
C	1104 (A,158,177)		CEAT100M50
C	1106 (A,160,168)		CKSQYB225K10
C	1111 (A,67,145)		CKSRYB104K16
C	1112 (A,53,141)		CKSQYB225K10
C	1113 (A,48,144)		CEAT101M10
C	1122 (A,170,95)		CKSRYB104K16
C	1141 (A,170,85)		CKSRYB104K16
C	1142 (A,167,81)		CKSRYB104K16
C	1143 (A,175,79)		CEAT100M50
C	1161 (A,170,70)		CKSRYB104K16
C	1162 (A,172,74)		CKSRYB104K16
C	1163 (A,167,74)		CKSQYB225K10
C	1164 (A,146,188)		CEAT470M16
C	1211 (A,150,97)		CEAT100M50
C	2001 (A,62,105)		CEAT101M10
C	2003 (A,67,108)		CKSRYB103K25
C	2004 (A,80,107)		CKSRYB103K25
C	2005 (A,87,103)		CKSRYB102K50
C	2006 (A,100,120)		CKSRYB103K25
C	2007 (A,97,137)		CKSRYB103K25
C	2008 (A,99,133)		CKSRYB103K25
C	2009 (A,94,138)		CKSRYB103K25
C	2010 (A,83,135)		CKSRYB103K25
C	2011 (A,77,135)		CKSRYB103K25
C	2012 (A,74,135)		CKSRYB103K25
C	2013 (A,64,124)		CKSRYB103K25
C	2014 (A,62,111)		CEAL1R0M50
C	2101 (A,95,179)		CEAT100M50
C	2102 (A,95,169)		CEAT100M50
C	2103 (A,86,179)		CKSRYB222K50
C	2104 (A,85,165)		CKSRYB222K50
C	2106 (A,75,180)		CEAT100M50
C	2107 (A,75,166)		CEAT100M50
C	2108 (A,87,183)		CKSRYB102K50
C	2109 (A,87,161)		CKSRYB102K50
C	2110 (A,95,184)		CEAT100M50
C	2111 (A,95,164)		CEAT100M50
C	2113 (A,75,175)		CEAT100M50
C	2114 (A,80,172)		CKSRYB104K16
C	2153 (A,112,165)		CEAT101M10
C	2154 (A,108,160)		CKSRYB104K16
C	2155 (A,115,172)		CEAT101M10
C	2156 (A,106,160)		CKSRYB103K25
C	2157 (A,108,174)		CKSRYB104K16
C	2158 (A,115,179)		CEAT100M50
C	2203 (A,96,89)		CKSRYB103K25
C	3002 (A,62,77)		CEAT101M10
C	3003 (A,68,81)		CKSRYB103K25
C	3004 (A,70,70)		CKSRYB104K16
C	3008 (A,97,73)		CKSRYB104K16
C	3010 (A,81,84)		CKSRYB104K16
C	3014 (A,90,51)		CKSRYB104K16
C	3032 (A,97,50)		CKSRYB104K16
C	3051 (A,26,90)		CKSRYB104K16
C	3052 (A,66,51)		CKSRYB104K16
C	3053 (A,64,37)		CKSRYB104K16
C	3054 (A,56,51)		CKSRYB104K16
C	3055 (A,56,38)		CKSRYB104K16
C	3056 (A,66,174)		CEAT100M50
C	3057 (A,60,174)		CEAT100M50
C	3060 (A,64,182)		CCSRCH101J50
C	3063 (A,68,182)		CCSRCH101J50
C	3064 (A,62,198)		CKSRYB102K50
C	3065 (A,66,202)	ELECT. CAPACITOR	CEAT470M35
C	4001 (A,143,130)		CCSRCH220J50
C	4002 (A,143,132)		CCSRCH220J50
C	4003 (A,138,133)		CKSRYB104K16
C	4004 (A,131,111)		CEAT101M10
C	4005 (A,132,105)		CKSRYB104K16
C	4006 (A,118,135)		CKSRYB104K16
C	4007 (A,121,120)		CKSRYB103K25
C	4101 (A,59,161)		CKSRYB104K16
C	4102 (A,65,161)		CKSRYB104K16
C	5003 (A,34,193)		CCSRCH221J50
C	5004 (A,34,189)		CCSRCH221J50
C	5005 (A,45,190)		CEAT100M50
C	5006 (A,45,184)		CEAT100M50
C	5008 (A,129,213)		CKSRYB103K50
C	5009 (A,166,195)		CKSQYB105K16
C	5024 (A,145,220)		CKSRYB104K16
C	5025 (A,144,205)		CKSRYB104K16
C	5026 (A,150,200)	ELECT. CAPACITOR	CEAT470M35
C	5027 (A,150,217)		CEAT100M50
C	5028 (A,150,208)		CEAT100M50
C	5101 (A,113,204)		CEAT100M50
C	5102 (A,118,203)		CKSRYB104K16
C	5103 (A,122,203)		CKSQYB225K10
C	5104 (A,122,201)		CKSRYB104K16
C	5105 (A,113,200)		CEAT100M50
C	5106 (A,118,200)		CKSRYB104K16
C	5107 (A,125,188)		CKSRYB103K50

Mark	No.	Description	Part No.
C	5201 (A,32,85)		CCSRCH221J50
C	5202 (A,32,90)		CCSRCH221J50
C	5205 (A,42,76)		CEAT100M50
C	5206 (A,42,100)		CEAT100M50
C	5222 (A,43,63)		CKSRYB104K16
C	5601 (A,121,18)		CEAT101M16
C	5602 (A,121,25)		CEAT101M16
C	5801 (A,45,221)	ELECT. CAPACITOR	CEAT102M6R3
C	5802 (A,37,225)		CKSRYB104K16
C	5803 (A,34,204)	ELECT. CAPACITOR	CEAT102M6R3
C	5851 (A,67,220)		CEAT471M6R3
C	5852 (A,67,212)		CEAT471M6R3
C	5853 (A,47,199)	ELECT. CAPACITOR	CEAT102M6R3

C AHTS OPT IN ASSY

MISCELLANEOUS

Mark	No.	Description	Part No.
L	5311 (A,8,172)	INDUCTOR	CTF1379
JA	5301 (A,17,162)	OPT. LINK IN	GP1FAV51RKBF
JA	5302 (A,17,147)	OPT. LINK IN	GP1FAV51RKBF
CN	4105 (A,8,175)	5P CONNECTOR	VKN1236

RESISTORS

Mark	No.	Description	Part No.
R	5301 (A,12,171)		RS1/16S221J
R	5311 (A,7,155)		RS1/16S221J

CAPACITORS

Mark	No.	Description	Part No.
C	5311 (A,8,170)		CKSRYB104K16
C	5313 (A,11,171)		CKSRYB104K16

D AHTS-HTP AMP ASSY

MISCELLANEOUS

Mark	No.	Description	Part No.
⚠ IC	3101 (A,22,84)	8CH PWM PROCESSOR IC	TAS5508BPAG
IC	3121 (A,56,32)	REGULATOR IC	NJM78M12DL1A
IC	3191 (A,40,153)	OP-AMP IC	BA10358F
⚠ IC	3201 (A,46,54)	DIGITAL AMP IC	TAS5142DDV
⚠ IC	3301 (A,46,84)	DIGITAL AMP IC	TAS5142DDV
⚠ IC	3401 (A,46,114)	DIGITAL AMP IC	TAS5142DDV
IC	3601 (B,92,14)	DUAL OP-AMP	NJM4565MD
IC	3901 (A,11,27)	DUAL OP-AMP	NJM4565MD
Q	3181 (A,65,154)	TRANSISTOR	2SC4154
Q	3601 (B,92,28)	TRANSISTOR	IMX9
Q	3602 (A,93,17)	DIGITAL TR(SC-70)	RT1P241M
Q	3603 (B,92,34)	TRANSISTOR	IMX9
Q	3604 (A,28,51)	DIGITAL TR(SC-70)	RT1P241M
D	3101 (A,28,57)	DIODE	MC2846-11
D	3121 (A,74,32)	DIODE	1SR154-400
D	3122 (A,74,29)	DIODE	1SR154-400
D	3123 (A,74,25)	DIODE	1SR154-400
D	3124 (A,80,29)	DIODE	1SR154-400
D	3125 (B,81,31)	DIODE	1SR154-400
D	3126 (B,77,31)	DIODE	1SR154-400
D	3181 (A,82,146)	DIODE	UDZS8R2(B)
D	3183 (A,65,149)	DIODE	1SS352
D	3184 (A,65,151)	DIODE	1SS352
D	3191 (A,49,146)	DIODE	UDZS4R7(B)
D	3603 (A,91,11)	DIODE	UDZS6R2(B)
L	3201 (A,63,37)	INDUCTOR	ATH7021
L	3202 (A,63,54)	INDUCTOR	ATH7021
L	3301 (A,63,70)	INDUCTOR	ATH7021
L	3302 (A,63,87)	INDUCTOR	ATH7021
L	3401 (A,63,103)	INDUCTOR	ATH7021
L	3402 (A,63,120)	INDUCTOR	ATH7021
JA	3111 (A,116,49)	JACK	XKB3062
X	3101 (A,18,67)	CRYSTAL RESONATOR (13.5 MHz)	ASS7062
CN	3101 (A,18,8)	CONNECTOR	9604S-17C
CN	3102 (A,54,7)	CONNECTOR	9604S-17C
CN	3201 (A,23,153)	PLUG	CKS-555
CN	3211 (A,116,96)	6CH SPEAKER JACK(V0)	AKE7121
CN	3221 (A,84,153)	PLUG(2P)	KM200NA2
	303	PCB BINDER	VEF1040
	302	PCB BINDER	VEF1040
	301	PCB BINDER	VEF1040

RESISTORS

Mark	No.	Description	Part No.
R	3101 (A,14,95)		RS1/16S221J
R	3102 (A,14,92)		RS1/16S221J
R	3103 (A,11,68)		RS1/16S4R7J
R	3104 (A,13,78)		RAB4C221J
R	3106 (A,19,73)		RS1/16S105J
R	3107 (A,22,72)		RAB4C470J
R	3108 (A,26,72)		RAB4C101J
R	3111 (A,29,98)		RS1/16S220J
R	3112 (A,18,97)		RS1/16S470J
R	3113 (A,15,97)		RS1/16S3R3J
R	3114 (A,27,54)		RS1/16S103J
R	3121 (A,62,21)	METAL OXIDE RESISTOR	RS3LMF330J
R	3122 (A,44,17)	METAL OXIDE RESISTOR	RS3LMF330J
R	3123 (B,72,31)		RS1/16S0R0J
R	3151 (A,29,17)		RAB4C103J
R	3152 (A,36,17)		RAB4C222J
R	3183 (A,70,149)		RS1/16S681J
⚠ R	3187 (A,70,152)		RS1/16S100J
⚠ R	3191 (A,32,151)	RESISTOR (0.1,3W)	XCN3002
R	3192 (A,37,147)		RS1/16S1002F
R	3193 (A,34,154)		RS1/16S1002F
R	3194 (A,35,151)		RS1/16S1003F
R	3195 (A,31,154)		RS1/16S1003F
R	3196 (A,37,146)	CHIP RESISTOR	RS1/16S2201F
R	3197 (A,47,146)		RS1/16S1002F
⚠ R	3199 (A,33,149)		RS1/16S8R2J
⚠ R	3201 (A,37,46)		RS1/16S100J
⚠ R	3202 (A,37,62)		RS1/16S100J
R	3204 (A,38,55)		RS1/16S223J
R	3205 (A,37,50)		RS1/16S221J
⚠ R	3209 (A,36,44)		RS1/16S100J
⚠ R	3210 (A,36,64)		RS1/16S100J
⚠ R	3227 (A,78,36)		RS1/10S3R3J
⚠ R	3228 (A,79,51)		RS1/10S3R3J
R	3231 (B,83,41)		RS1/10S472J
R	3232 (B,83,58)		RS1/10S472J
R	3233 (B,83,49)		RS1/10S472J
R	3234 (B,83,66)		RS1/10S472J
⚠ R	3235 (B,104,84)		RS1/16S1R0J
⚠ R	3236 (B,95,72)		RS1/16S1R0J
⚠ R	3237 (B,104,72)		RS1/16S1R0J
⚠ R	3238 (B,94,76)		RS1/16S1R0J
⚠ R	3241 (A,57,45)		RS1/10S180J
⚠ R	3242 (A,57,59)		RS1/10S180J
⚠ R	3243 (A,57,49)		RS1/10S180J

Mark	No.	Description	Part No.
⚠ R	3244 (A,57,63)		RS1/10S180J
⚠ R	3301 (A,37,76)		RS1/16S100J
⚠ R	3302 (A,37,92)		RS1/16S100J
R	3304 (A,38,85)		RS1/16S223J
R	3305 (A,37,80)		RS1/16S221J
⚠ R	3309 (A,36,74)		RS1/16S100J
⚠ R	3310 (A,36,94)		RS1/16S100J
⚠ R	3327 (A,79,68)		RS1/10S3R3J
⚠ R	3328 (A,79,84)		RS1/10S3R3J
R	3331 (B,83,74)		RS1/10S472J
R	3332 (B,83,91)		RS1/10S472J
R	3333 (B,83,82)		RS1/10S472J
R	3334 (B,83,99)		RS1/10S472J
⚠ R	3335 (B,97,90)		RS1/16S1R0J
⚠ R	3336 (B,104,99)		RS1/16S1R0J
⚠ R	3337 (B,95,95)		RS1/16S1R0J
⚠ R	3338 (B,109,94)		RS1/16S1R0J
⚠ R	3341 (A,57,75)		RS1/10S180J
⚠ R	3342 (A,57,89)		RS1/10S180J
⚠ R	3343 (A,57,79)		RS1/10S180J
⚠ R	3344 (A,57,93)		RS1/10S180J
⚠ R	3401 (A,37,106)		RS1/16S100J
⚠ R	3402 (A,37,122)		RS1/16S100J
R	3404 (A,38,115)		RS1/16S223J
R	3405 (A,37,110)		RS1/16S221J
⚠ R	3409 (A,36,104)		RS1/16S100J
⚠ R	3410 (A,36,124)		RS1/16S100J
⚠ R	3427 (A,79,101)		RS1/10S3R3J
⚠ R	3428 (A,79,117)		RS1/10S3R3J
R	3431 (B,83,107)		RS1/10S472J
R	3432 (B,82,123)		RS1/10S472J
R	3433 (B,83,114)		RS1/10S472J
R	3434 (B,82,125)		RS1/10S472J
⚠ R	3435 (B,95,110)		RS1/16S1R0J
⚠ R	3436 (B,104,118)		RS1/16S1R0J
⚠ R	3437 (B,92,113)		RS1/16S1R0J
⚠ R	3438 (B,109,109)		RS1/16S1R0J
⚠ R	3441 (A,57,105)		RS1/10S180J
⚠ R	3442 (A,57,119)		RS1/10S180J
⚠ R	3443 (A,57,109)		RS1/10S180J
⚠ R	3444 (A,57,123)		RS1/10S180J
R	3601 (A,76,16)		RS1/16S472J
R	3602 (A,82,12)		RS1/16S472J
R	3603 (B,101,10)		RS1/16S472J
R	3604 (B,104,10)		RS1/16S472J
R	3605 (B,81,16)		RS1/16S472J
R	3606 (B,103,16)		RS1/16S472J
R	3607 (B,83,11)		RS1/16S472J
R	3608 (B,101,11)		RS1/16S472J
R	3609 (B,86,17)		RS1/16S103J
R	3610 (B,99,17)		RS1/16S103J
R	3611 (B,83,13)		RS1/16S103J
R	3612 (B,101,13)		RS1/16S103J
R	3613 (B,87,25)		RS1/16S473J
R	3614 (B,98,25)		RS1/16S473J
R	3615 (B,87,26)		RS1/16S102J
R	3616 (B,98,26)		RS1/16S102J
R	3617 (B,94,25)		RS1/16S472J
R	3618 (B,90,25)		RS1/16S472J
R	3619 (B,95,38)		RS1/16S221J

Mark	No.	Description	Part No.
R	3620 (B,97,38)		RS1/16S221J
R	3623 (A,91,7)		RS1/16S102J
R	3629 (B,87,28)		RS1/16S821J
R	3630 (B,98,28)		RS1/16S821J
R	3631 (B,94,31)		RS1/16S472J
R	3632 (B,90,31)		RS1/16S472J
R	3633 (A,29,103)		RS1/16S0R0J
R	3634 (A,30,108)		RS1/16S0R0J
R	3901 (A,11,39)		RAB4C472J
R	3905 (A,17,35)		RS1/16S562J
R	3906 (A,6,35)		RS1/16S562J
R	3907 (A,15,35)		RS1/16S562J
R	3908 (A,7,35)		RS1/16S562J
R	3909 (A,16,32)		RS1/16S183J
R	3910 (A,6,32)		RS1/16S183J
R	3911 (A,13,32)		RS1/16S183J
R	3912 (A,9,32)		RS1/16S183J
R	3913 (A,11,43)		RS1/16S472J
R	3914 (A,7,42)		RS1/16S472J
R	3915 (A,12,41)		RS1/16S472J
R	3916 (A,8,43)		RS1/16S472J
R	3923 (A,12,24)		RS1/16S472J
R	3924 (A,12,21)		RS1/16S472J

CAPACITORS

Mark	No.	Description	Part No.
C	3101 (A,16,92)		CKSRYB104K16
C	3102 (A,14,93)		CKSRYB103K50
C	3103 (A,11,94)		CKSRYB104K16
C	3104 (A,11,91)		CKSRYB104K16
C	3105 (A,14,90)		CKSRYB103K50
C	3106 (A,12,87)		CKSRYB104K16
C	3107 (A,12,86)		CKSRYB224K16
C	3108 (A,12,72)		CEAT100M50
C	3109 (A,12,84)		CKSRYB102K50
C	3110 (A,16,77)		CKSRYB104K16
C	3111 (A,13,64)		CEAT100M50
C	3112 (A,17,76)		CKSRYB104K16
C	3113 (A,17,74)		CCSRCH180J50
C	3114 (A,17,73)		CCSRCH150J50
C	3115 (A,28,76)		CKSRYB104K16
C	3116 (A,28,75)		CKSRYB224K16
C	3117 (A,26,66)		CEAT100M50
C	3118 (A,29,92)		CKSRYB104K16
C	3119 (A,24,94)		CKSRYB224K16
C	3120 (A,25,97)		CEAT100M50
C	3121 (A,65,31)		CEAT100M50
C	3123 (A,66,25)		CEAT100M50
C	3151 (B,24,20)		CKSRYB104K16
C	3180 (A,68,149)		CKSRYB104K50
C	3182 (A,74,154)	ELECT. CAPACITOR	CEAT470M35
C	3192 (A,37,149)		CKSRYB104K50
C	3201 (A,39,45)		CKSRYB104K16
C	3202 (A,39,63)		CKSRYB104K16
C	3205 (A,39,48)		CKSRYB104K16
C	3206 (A,38,53)		CKSRYB104K16
C	3207 (A,37,44)		CKSRYB104K16
C	3208 (A,37,64)		CKSRYB104K16
C	3211 (A,59,42)		CKSRYB104K50
C	3212 (A,59,57)		CKSRYB104K50
C	3213 (A,59,51)		CKSRYB104K50

Mark	No.	Description	Part No.
C	3214 (A,59,65)		CKSRYB104K50
C	3215 (B,57,41)		CKSRYB333K50
C	3216 (B,57,55)		CKSRYB333K50
C	3217 (B,57,53)		CKSRYB333K50
C	3218 (B,57,67)		CKSRYB333K50
C	3221 (A,86,43)	ELECT. CAPACITOR	CEAT102M35
C	3222 (A,86,59)	ELECT. CAPACITOR	CEAT102M35
C	3223 (A,80,37)		CKSRYB103K50
C	3224 (A,80,54)		CKSRYB103K50
C	3225 (A,80,48)		CKSRYB102K50
C	3226 (A,80,65)		CKSRYB102K50
C	3231 (A,79,45)		CFTLA474J2A
C	3232 (A,79,62)		CFTLA474J2A
C	3237 (B,105,87)		CKSRYB103K50
C	3238 (B,99,74)		CKSRYB103K50
C	3239 (B,103,74)		CKSRYB103K50
C	3240 (B,94,78)		CKSRYB103K50
C	3241 (A,56,44)		CKSRYB331K50
C	3242 (A,56,58)		CKSRYB331K50
C	3243 (A,56,50)		CKSRYB331K50
C	3244 (A,56,64)		CKSRYB331K50
C	3245 (B,103,82)		CKSRYB104K50
C	3246 (B,99,75)		CKSRYB104K50
C	3247 (B,103,75)		CKSRYB104K50
C	3248 (B,95,81)		CKSRYB104K50
C	3301 (A,39,75)		CKSRYB104K16
C	3302 (A,39,93)		CKSRYB104K16
C	3305 (A,39,78)		CKSRYB104K16
C	3306 (A,38,83)		CKSRYB104K16
C	3307 (A,37,74)		CKSRYB104K16
C	3308 (A,37,94)		CKSRYB104K16
C	3311 (A,59,73)		CKSRYB104K50
C	3312 (A,59,87)		CKSRYB104K50
C	3313 (A,59,81)		CKSRYB104K50
C	3314 (A,59,95)		CKSRYB104K50
C	3315 (B,57,71)		CKSRYB333K50
C	3316 (B,57,85)		CKSRYB333K50
C	3317 (B,57,83)		CKSRYB333K50
C	3318 (B,57,97)		CKSRYB333K50
C	3321 (A,86,76)	ELECT. CAPACITOR	CEAT102M35
C	3322 (A,86,92)	ELECT. CAPACITOR	CEAT102M35
C	3323 (A,80,70)		CKSRYB103K50
C	3324 (A,80,87)		CKSRYB103K50
C	3325 (A,80,81)		CKSRYB102K50
C	3326 (A,80,98)		CKSRYB102K50
C	3331 (A,79,78)		CFTLA474J2A
C	3332 (A,79,95)		CFTLA474J2A
C	3337 (B,98,89)		CKSRYB103K50
C	3338 (B,103,97)		CKSRYB103K50
C	3339 (B,94,98)		CKSRYB103K50
C	3340 (B,108,91)		CKSRYB103K50
C	3341 (A,56,74)		CKSRYB331K50
C	3342 (A,56,88)		CKSRYB331K50
C	3343 (A,56,80)		CKSRYB331K50
C	3344 (A,56,94)		CKSRYB331K50
C	3345 (B,101,90)		CKSRYB104K50
C	3346 (B,102,99)		CKSRYB104K50
C	3347 (B,94,100)		CKSRYB104K50
C	3348 (B,104,90)		CKSRYB104K50

Mark	No.	Description	Part No.
C	3401 (A,39,105)		CKSRYB104K16
C	3402 (A,39,123)		CKSRYB104K16
C	3405 (A,39,108)		CKSRYB104K16
C	3406 (A,38,113)		CKSRYB104K16
C	3407 (A,37,104)		CKSRYB104K16
C	3408 (A,37,124)		CKSRYB104K16
C	3411 (A,59,103)		CKSRYB104K50
C	3412 (A,59,117)		CKSRYB104K50
C	3413 (A,59,111)		CKSRYB104K50
C	3414 (A,59,126)		CKSRYB104K50
C	3415 (B,57,101)		CKSRYB333K50
C	3416 (B,59,117)		CKSRYB333K50
C	3417 (B,57,114)		CKSRYB333K50
C	3418 (B,57,127)		CKSRYB333K50
C	3421 (A,86,109)	ELECT. CAPACITOR	CEAT102M35
C	3422 (A,86,125)	ELECT. CAPACITOR	CEAT102M35
C	3423 (A,80,103)		CKSRYB103K50
C	3424 (A,80,120)		CKSRYB103K50
C	3425 (A,80,114)		CKSRYB102K50
C	3426 (A,80,131)		CKSRYB102K50
C	3431 (A,79,111)		CFTLA474J2A
C	3432 (A,79,128)		CFTLA474J2A
C	3437 (B,93,108)		CKSRYB103K50
C	3438 (B,105,120)		CKSRYB103K50
C	3439 (B,90,114)		CKSRYB103K50
C	3440 (B,108,106)		CKSRYB103K50
C	3441 (A,56,104)		CKSRYB331K50
C	3442 (A,56,118)		CKSRYB331K50
C	3443 (A,56,110)		CKSRYB331K50
C	3444 (A,56,124)		CKSRYB331K50
C	3445 (B,96,107)		CKSRYB104K50
C	3446 (B,106,117)		CKSRYB104K50
C	3447 (B,94,113)		CKSRYB104K50
C	3448 (B,103,105)		CKSRYB104K50
C	3601 (B,80,14)		CCSRCH821J50
C	3602 (B,104,14)		CCSRCH821J50
C	3603 (B,80,11)		CCSRCH821J50
C	3604 (B,104,11)		CCSRCH821J50
C	3605 (B,84,17)		CCSRCH331J50
C	3606 (B,100,17)		CCSRCH331J50
C	3607 (B,80,13)		CCSRCH331J50
C	3608 (B,104,13)		CCSRCH331J50
C	3609 (A,89,19)		CEAT100M50
C	3610 (A,96,19)		CEAT100M50
C	3611 (B,87,30)		CCSRCH821J50
C	3612 (B,98,30)		CCSRCH821J50
C	3621 (A,85,8)		CEAT100M50
C	3622 (A,97,8)		CEAT100M50
C	3623 (B,91,18)		CKSRYB104K50
C	3624 (A,93,12)		CKSRYB104K16
C	3901 (A,13,35)		CCSRCH681J50
C	3902 (A,9,35)		CCSRCH681J50
C	3903 (A,13,36)		CCSRCH681J50
C	3904 (A,9,36)		CCSRCH681J50
C	3905 (A,16,33)		CCSRCH181J50
C	3906 (A,6,33)		CCSRCH181J50
C	3907 (A,13,33)		CCSRCH561J50
C	3908 (A,9,33)		CCSRCH561J50
C	3921 (A,19,18)		CEAT100M50

Mark	No.	Description	Part No.
C	3922 (A,16,23)		CEAT100M50
C	3923 (A,9,24)		CKSRYB104K16
C	3924 (A,12,22)		CKSRYB104K16

E AHTS DISPLAY ASSY

MISCELLANEOUS

Mark	No.	Description	Part No.
IC	9001 (B,191,46)	FL DRIVER IC	PT6302LQ-003
IC	9301 (B,63,27)	DUAL OP-AMP	NJM4565MD
Q	9001 (B,148,50)	TRANSISTOR	2SC4081
D	9201 (B,67,52)	ZENER DIODE	UMZU6.2N
D	9301 (B,72,30)	DIODE	UDZS5R1(B)
L	9001 (B,161,55)	INDUCTOR	LCYA100J2520
L	9101 (B,49,35)	INDUCTOR	CTF1306
L	9103 (B,53,47)	INDUCTOR	CTF1306
L	9301 (B,84,35)	INDUCTOR	CTF1379
JA	9101 (A,60,41)	MINITURE JACK	AKN7005
JA	9201 (A,69,53)	JACK	XKB3056
JA	9301 (A,80,41)	MIC JACK	XKN3012
V	9001 (A,115,31)	FL TUBE(ADV-HTS)	XAV3040
S	9001 (A,37,39)	SWITCH	VSG1024
CN	9001 (A,21,58)	31P CONNECTOR	52044-3145
CN	9401 (A,100,54)	7P CONNECTOR	VKN1267
	9002 (A,188,24)	3P CABLE HOLDER	51048-0300
	9051 (A,106,24)	REMOTE RECEIVER UNIT	GP1UE274XKC1

RESISTORS

Mark	No.	Description	Part No.
R	9001 (B,214,60)		RS1/16S101J
R	9002 (B,212,60)		RS1/16S101J
R	9003 (B,209,60)		RS1/16S101J
R	9004 (B,207,60)		RS1/16S101J
R	9005 (B,33,41)		RS1/16S102J
R	9006 (B,199,58)		RS1/16S332J
R	9007 (B,157,48)		RS1/16S102J
R	9009 (B,166,53)		RS1/16S472J
R	9031 (B,132,42)		RS1/16S0R0J
R	9051 (B,90,22)		RS1/16S470J
R	9054 (B,107,30)		RS1/16S101J
R	9102 (B,44,35)		RS1/16S680J
R	9103 (B,46,35)		RS1/16S680J
R	9106 (B,46,47)		RS1/16S680J
R	9107 (B,44,47)		RS1/16S680J
R	9108 (B,42,39)		RS1/16S680J
R	9301 (B,36,33)		RS1/16S680J
R	9302 (B,86,35)		RS1/16S682J
R	9303 (B,84,31)		RS1/16S104J
R	9304 (B,68,31)		RS1/16S104J
R	9305 (B,74,30)		RS1/16S101J
R	9306 (B,93,29)		RS1/16S392J
R	9307 (B,73,35)		RS1/16S472J
R	9308 (B,58,30)		RS1/16S333J
R	9309 (B,72,24)		RS1/16S472J
R	9310 (B,70,24)		RS1/16S333J
R	9311 (B,75,24)		RS1/16S101J

CAPACITORS

Mark	No.	Description	Part No.
C	9001 (A,172,56)	ELECTR. CAPACITOR	CEAL470M35
C	9002 (B,167,57)		CKSRYB223K50
C	9003 (B,158,54)		CKSRYB223K50
C	9004 (B,219,56)		CCSRCH221J50
C	9005 (B,214,56)		CCSRCH221J50
C	9006 (B,207,56)		CCSRCH221J50
C	9007 (B,203,59)		CKSRYB224K16
C	9010 (A,211,49)		CEAL470M6R3
C	9011 (B,165,57)		CKSRYB223K50
C	9012 (B,201,59)		CCSRCH390J50
C	9021 (A,233,42)	ELECTR. CAPACITOR	CEAL470M35
C	9022 (B,113,36)		CCSRCH221J50
C	9023 (B,241,36)		CCSRCH221J50
C	9024 (B,239,36)		CKSRYB104K50
C	9025 (B,116,36)		CKSRYB104K50
C	9030 (A,116,45)	ELECTR. CAPACITOR	CEAL470M35
C	9051 (A,93,25)		CEJQ470M6R3
C	9052 (B,94,22)		CKSRYB223K50
C	9101 (B,46,39)		CKSRYB103K50
C	9102 (B,49,39)		CKSRYB473K25
C	9103 (B,42,35)		CKSRYB102K50
C	9105 (B,49,47)		CKSRYB473K25
C	9106 (B,44,43)		CKSRYB102K50
C	9202 (B,43,54)		CKSRYF104Z25
C	9203 (A,49,56)		CEAT221M6R3
C	9204 (B,56,57)		CKSRYF104Z25
C	9301 (B,70,31)		CCSRCH101J50
C	9302 (B,86,31)		CCSRCH471J50
C	9303 (B,75,35)		CKSQYB105K16
C	9304 (A,93,32)		CEAT470M35
C	9305 (A,78,30)		CEAT100M50
C	9306 (B,39,33)		CKSRYB103K50
C	9307 (B,56,26)		CKSQYB105K16
C	9308 (B,58,26)		CKSRYB104K16
C	9310 (B,56,30)		CCSRCH330J50
C	9311 (A,78,24)		CEAT100M50
C	9312 (B,68,24)		CCSRCH330J50
C	9401 (A,87,57)		CEAL100M16

F AHTS MOTION SENSOR ASSY

MISCELLANEOUS

Mark	No.	Description	Part No.
X	9601 (A,258,51)	A-HTS MOTION SENSOR	XXQ3011
	9601 (A,249,19)	3P CABLE HOLDER	51048-0300

RESISTORS

Mark	No.	Description	Part No.
R	9602 (B,254,44)		RS1/16S103J

CAPACITORS

Mark	No.	Description	Part No.
C	9601 (B,261,24)		CKSRYB104K16
C	9602 (A,259,20)		CEAT100M50

G AHTS LED ASSY

MISCELLANEOUS

Mark	No.	Description	Part No.
Q	9501 (B,272,43)	DIGITAL TRANSISTOR	DTC124EUA
Q	9502 (B,276,29)	TRANSISTOR	2SC4081
Q	9503 (B,281,17)	TRANSISTOR	2SC4081
Q	9504 (B,275,45)	DIGITAL TRANSISTOR	DTA143EUA
Q	9505 (B,272,48)	DIGITAL TRANSISTOR	DTC143EUA
D	9501 (A,281,21)	LED(BLUE)	SLR343BC4T(JKLM)
D	9502 (B,281,29)	DIODE	UDZS3R9(B)
D	9503 (A,279,49)	LED(RED)	SLI-343URCW(RST)
S	9501 (A,287,20)	SWITCH	VSG1024
CN	9501 (A,283,57)	7P CONNECTOR	52044-0745

RESISTORS

Mark	No.	Description	Part No.
R	9501 (B,279,28)		RS1/16S103J
R	9502 (B,276,16)		RS1/16S821J
R	9503 (B,272,30)		RS1/16S102J
R	9505 (B,284,17)		RS1/16S272J
R	9506 (B,283,29)		RS1/16S221J
R	9508 (B,284,44)		RS1/16S681J
R	9509 (B,282,44)		RS1/16S681J
R	9510 (B,278,44)		RS1/16S821J

CAPACITORS

Mark	No.	Description	Part No.
C	9501 (B,276,22)		CKSRYB103K50

H AHTS TOUCH SENSOR ASSY

MISCELLANEOUS

Mark	No.	Description	Part No.
Q	8001 (A,50,27)	TRANSISTOR	2SC4081
Q	8002 (A,16,41)	TRANSISTOR	2SC4081
Q	8003 (A,18,31)	TRANSISTOR	2SC4081
Q	8004 (A,24,29)	DIGITAL TRANSISTOR	DTC124EUA
Q	8005 (A,27,35)	TRANSISTOR	2SC4081
Q	8011 (A,30,31)	TRANSISTOR	2SC4081
Q	8012 (A,114,26)	TRANSISTOR	2SC4081
Q	8013 (A,96,26)	TRANSISTOR	2SC4081
Q	8014 (A,41,30)	TRANSISTOR	2SC4081
Q	8015 (A,125,33)	TRANSISTOR	2SC4081
Q	8016 (A,106,29)	TRANSISTOR	2SC4081
Q	8017 (A,49,31)	DIGITAL TRANSISTOR	DTC124EUA
Q	8018 (A,130,35)	DIGITAL TRANSISTOR	DTC124EUA
Q	8019 (A,113,31)	DIGITAL TRANSISTOR	DTC124EUA
D	8001 (B,56,28)	LED(WHITE)	NSSW008C-P1A0304
D	8002 (B,30,28)	LED(WHITE)	NSSW008C-P1A0304
D	8003 (B,126,26)	LED(WHITE)	NSSW008C-P1A0304
D	8004 (B,108,26)	LED(WHITE)	NSSW008C-P1A0304
D	8005 (B,82,28)	LED(WHITE)	NSSW008C-P1A0304
D	8006 (B,12,28)	LED(WHITE)	NSSW008C-P1A0304
D	8011 (A,41,26)	DIODE	UDZS2R7(B)
D	8012 (A,120,24)	DIODE	UDZS2R7(B)
D	8013 (A,102,25)	DIODE	UDZS3R9(B)
D	8014 (A,17,45)	DIODE	UDZS3R9(B)
CN	8001 (A,13,23)	7P CONNECTOR	VKN1411
CN	8002 (A,68,29)	5P CONNECTOR	VKN1374

RESISTORS

Mark	No.	Description	Part No.
R	8009 (A,75,23)		RS1/16S103J
R	8011 (A,86,24)		RS1/16S102J
R	8012 (A,84,24)		RS1/16S122J
R	8013 (A,82,24)		RS1/16S152J
R	8014 (A,80,24)		RS1/16S182J
R	8017 (A,68,24)		RS1/16S101J
R	8018 (A,75,31)		RS1/16S101J
R	8019 (A,70,32)		RS1/16S101J
R	8020 (A,31,22)		RS1/16S221J
R	8021 (A,34,35)		RS1/16S821J
R	8025 (A,34,32)		RS1/16S271J
R	8027 (A,34,31)		RS1/16S271J
R	8029 (A,44,30)		RS1/16S102J
R	8030 (A,59,28)		RS1/16S103J
R	8031 (A,118,32)		RS1/16S821J
R	8035 (A,118,29)		RS1/16S271J
R	8037 (A,118,27)		RS1/16S271J
R	8039 (A,128,30)		RS1/16S102J
R	8040 (A,131,30)		RS1/16S103J
R	8041 (A,98,33)		RS1/16S122J
R	8045 (A,98,30)		RS1/16S361J
R	8047 (A,98,28)		RS1/16S471J
R	8049 (A,109,31)		RS1/16S102J
R	8050 (A,109,28)		RS1/16S103J
R	8051 (A,44,28)		RS1/16S221J
R	8052 (A,126,26)		RS1/16S221J
R	8053 (A,106,25)		RS1/16S101J
R	8054 (A,21,36)		RS1/16S122J
R	8059 (A,18,36)		RS1/16S361J
R	8061 (A,16,36)		RS1/16S471J
R	8063 (A,18,28)		RS1/16S102J
R	8064 (A,22,31)		RS1/16S103J
R	8065 (A,19,41)		RS1/16S101J
R	8067 (A,30,35)		RS1/16S221J

CAPACITORS

Mark	No.	Description	Part No.
C	8005 (A,71,24)		CKSRYB102K50
C	8006 (A,89,34)		CKSRYB102K50
C	8007 (A,91,32)		CKSRYB104K25
C	8008 (A,89,23)		CKSRYB103K50
C	8031 (B,51,27)		CKSRYB103K50
C	8032 (B,30,26)		CKSRYB103K50
C	8033 (B,127,24)		CKSRYB103K50
C	8034 (B,112,25)		CKSRYB103K50
C	8035 (B,82,27)		CKSRYB103K50
C	8036 (B,13,27)		CKSRYB103K50

I AHTS COMPONENT ASSY

MISCELLANEOUS

Mark	No.	Description	Part No.
JA	9701 (A,307,53)	JACK	XKB3061
CN	9701 (A,295,22)	CONNECTOR	9604S-07C

RESISTORS

Mark	No.	Description	Part No.
R	9702 (B,310,27)		RS1/10S75R0F
R	9703 (B,304,35)		RS1/10S75R0F
R	9705 (B,315,37)		RS1/10S75R0F

Service Manual

ORDER NO.
RRV3869

DVD/CD RECEIVER

XV-LX61DV

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Region No.	Remarks
XV-LX61DV	WLPWXJ	AC 220 V to 240 V	3	
XV-LX61DV	NAXJ5	AC 220 V	6	

This service manual should be used together with the following manual(s).

Model No.	Order No.	Remarks
XV-LX61DV/KUCXJ	RRV3868	

PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS (USA) INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER EUROPE NV Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 253 Alexandra Road, #04-01, Singapore 159936
©PIONEER CORPORATION 2008

T-ZZK OCT. 2008 Printed in Japan

SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

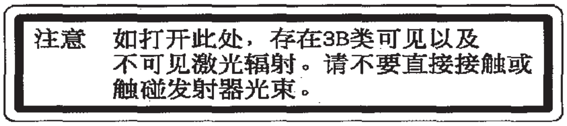
WARNING !

THE AEL (ACCESSIBLE EMISSION LEVEL) OF THE LASER POWER OUTPUT IS LESS THAN CLASS 1 BUT THE LASER COMPONENT IS CAPABLE OF EMITTING RADIATION EXCEEDING THE LIMIT FOR CLASS 1.
A SPECIALLY INSTRUCTED PERSON SHOULD DO SERVICING OPERATION OF THE APPARATUS.

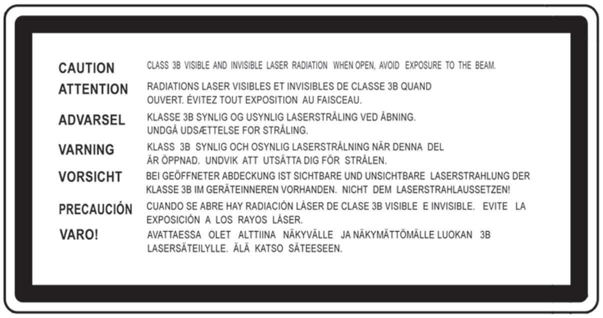
LASER DIODE CHARACTERISTICS

FOR DVD : MAXIMUM OUTPUT POWER : 5 mW
WAVELENGTH : 650 nm
FOR CD : MAXIMUM OUTPUT POWER : 5 mW
WAVELENGTH : 780 nm

LABEL CHECK

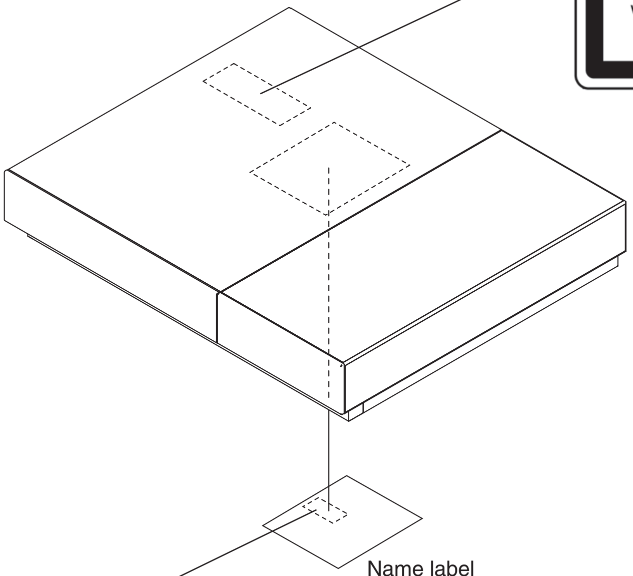

注意 如打开此处，存在3B类可见以及不可见激光辐射。请不要直接接触或触碰发射器光束。

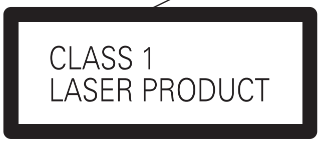
NAXJ5 type : XRW3013



CAUTION	CLASS 3B VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO THE BEAM.
ATTENTION	RADIATIONS LASER VISIBLES ET INVISIBLES DE CLASSE 3B QUAND OUVERT. ÉVITEZ TOUT EXPOSITION AU FAISCEAU.
ADVARSEL	KLASSE 3B SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARNING	KLASS 3B SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. UNDVIK ATT UTSÄTTA DIG FÖR STRÅLEN.
VORSICHT	BEI GEÖFFNETER ABDECKUNG IST SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG DER KLASSE 3B IM GERÄTEINNEREN VORHANDEN. NICHT DEM LASERSTRAHLAUSSETZEN!
PRECAUCIÓN	CUANDO SE ABRE HAY RADIACIÓN LÁSER DE CLASE 3B VISIBLE E INVISIBLE. EVITE LA EXPOSICIÓN A LOS RAYOS LÁSER.
VARO!	AVATTAESSA OLET ALTTIINA NÄKYVÄLLE JA NÄKYMÄTTÖMÄLLE LUOKAN 3B LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

WLPWXJ type : PRW1608




CLASS 1
LASER PRODUCT

Additional Laser Caution

1.
- Laser diode is driving with Q1307 (650 nm LD) and Q1308 (780 nm LD) on the 4IN1 MOD ASSY.
  Therefore, when short-circuit between the emitter and collector of these transistors or the base voltage is supplied for transistors turn on, the laser oscillates. (failure mode)
- In the test mode ∗ , there is the mode that the laser oscillates except for the disc judgment and playback. LD ON mode in the test mode oscillates with the laser forcibly.

2. When the cover is open, close viewing through the objective lens with the naked eye will cause exposure to the laser beam.

∗ : See page 35 on the service manual RRV3868.

1. CONTRAST OF MISCELLANEOUS PARTS

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on product are used for disassembly.*
- *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)*
- *Nos. indicate the pages and Nos. in the service manual for the base model.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*
  Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).
  560Ω → 56 x 10^1 → 561 .... RD1/4PU$\boxed{5}\boxed{6}\boxed{1}$J
  47kΩ → 47 x 10^3 → 473 .... RD1/4PU$\boxed{4}\boxed{7}\boxed{3}$J
  0.5Ω → R50 .... RN2H$\boxed{R}\boxed{5}\boxed{0}$K
  1Ω → 1R0 .... RS1P$\boxed{1}\boxed{R}\boxed{0}$K
  Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).
  5.62kΩ → 562 x 10^1 → 5621 .... RN1/4PC$\boxed{5}\boxed{6}\boxed{2}\boxed{1}$F

CONTRAST TABLE

XV-LX61DV/KUCXJ, XV-LX61DV/WLPWXJ and XV-LX61DV/NAXJ5 are constructed the same except for the following:

Mark	No.	Symbol and Description	XV-LX61DV/ KUCXJ	XV-LX61DV/ WLPWXJ	XV-LX61DV/ NAXJ5	Remarks
		PCB ASSEMBLIES				
	P69-2	1..4IN1 MOD Assy	AWX9179	AWX9178	AWX9178	
		1..AHTS KU SYSMAIN ASSY	XWM3424	Not used	Not used	
	P69-6	2..AHTS KU SYSMAIN ASSY	XWZ4363	Not used	Not used	
		1..AHTS WLPWXJ SYSMAIN ASSY	Not used	XWM3425	Not used	
	P69-6	2..AHTS WLPWXJ SYSMAIN ASSY	Not used	XWZ4365	Not used	
		1..AHTS NAXJ5 SYSMAIN ASSY	Not used	Not used	XWM3434	
	P69-6	2..AHTS NAXJ5 SYSMAIN ASSY	Not used	Not used	XWZ4366	
	P69-12	1..FM/AM Tuner Unit	AXX7250	AXX7251	AXX7251	*1
		PACKING SECTION				
⚠	P65-1	Power Cord	ADG7021	ADG1127	ADG7079	
NSP	P65-8	Warranty Card	ARY7045	Not used	ARY7118	
	P65-16	Packing Case AHTS	XHD3829	XHD3831	XHD3835	
	P65-17	Operating Instructions (English)	XRB3102	XRB3103	Not used	
	P65-20	Operating Instructions (French)	XRC3389	Not used	Not used	
	P65-25	Remote Control	XXD3171	XXD3170	XXD3170	
		Operating Instructions (Simp-Chinese)	Not used	Not used	XRC3367	
		Operating Instructions (Trad-Chinese)	Not used	XRC3378	Not used	
		EXTERIOR SECTION				
	P67-19	Front Panel Assy HTS	XXG3401	XXG3381	XXG3381	
	P67-28	Laser Caution PAP	PRW1608	PRW1608	XRW3013	
NSP	P67-35	Energy Star Label	AAX8022	Not used	Not used	
		CHASSIS SECTION				
	P69-27	AC Inlet IBD	XDX3075	XDX3074	XDX3074	
	P69-47	Rear Panel	XNC3619	XNC3621	XNC3622	
NSP	P69-63	Name Label ADV	XAL3320	XAL3322	XAL3323	
	P69-65	14P FFC 1MM/60V	XDD3282	Not used	Not used	
		SISIR Label - AHTS	Not used	XAX3706	Not used	Rear Panel
NSP		CCC S&E Label	Not used	Not used	DRW2310	Rear Panel

Notes : For PCB ASSEMBLIES, Refer to "CONTRAST OF PCB ASSEMBLIES".
*1 : FM/AM TUNER Unit has no service parts.

CONTRAST OF PCB ASSEMBLIES

AF 4IN1 MOD ASSY

AWX9179 and AWX9178 are constructed the same except for the following:

Mark	Symbol and Description	AWX9179	AWX9178	Remarks
	IC121	BU9450KV	Not used	
	IC122	AAT4618IGV-0.5-1	Not used	
	IC341	TC74VHCT08AFTS1	Not used	
	D121,D122	UDZS5R6(B)	Not used	
	L121,L341 Chip Solid Inductor	QTL1013	Not used	
	L122 Chip Solid Inductor	ATL7002	Not used	
	X121 Crystal Resonator	ASS7065	Not used	
	CN4 14p Connector	VKN1418	Not used	
	JA121 4p Socket	AKP7201	Not used	
	R123,R331,R338,R351	Not used	RS1/16SS0R0J	*1
	R124,R126,R140,R332,R335	RS1/16SS101J	Not used	
	R125,R127	RS1/16SS102J	Not used	
	R130	RS1/16SS471J	Not used	
	R131	RS1/16SS105J	Not used	
	R134,R142-R144,R147	RS1/16SS223J	Not used	
	R136	RS1/16SS332J	Not used	
	R138	RS1/16SS182J	Not used	
	R139,R145,R146	RAB4CQ101J	Not used	
	R148	RAB4CQ223J	Not used	
	R149	RS1/16SS103J	Not used	
	R31	RAB4CQ104J	Not used	
	R341-R344	RS1/16SS331J	Not used	
	C121	CEVW470M6R3	Not used	
	C122	CKSSYB471K50	Not used	
	C123-C126,C128,C342	CKSSYB104K10	Not used	
	C127	CEVW101M16	Not used	
	C131,C132	CCSSCH100D50	Not used	
	C138	CKSRYB105K16	Not used	

*1 Refer to the stby parts of “10.1 4IN1 MOD ASSY (1/6)” and “10.3 4IN1 MOD ASSY (3/6)” on the service manual RRV3868.

B F AHTS SYSMAIN ASSY

XWZ4363, XWZ4365 and XWZ4366 are constructed the same except for the following:

Mark	Symbol and Description	XWZ4363	XWZ4365	XWZ4366	Remarks
	IC1001	AYW7268	AYW7209	AYW7209	
⚠	IC1111	MM1665XH	Not used	Not used	
	IC2101	NJM2100M	Not used	Not used	
	IC2151	PCM1742KE	Not used	Not used	
	IC3001	PEG488A8	Not used	Not used	
	IC3002	TC7SET08FUS1	Not used	Not used	
	IC3003	SST25V512ACS	Not used	Not used	
	IC3053	TC74VHCT125AFTS1	Not used	Not used	
	IC5002	TC4052BFN	Not used	Not used	
	IC5202	TC7SH08FUS1	Not used	Not used	
	Q2102	IMX9	Not used	Not used	
	Q2151	2SC4081	Not used	Not used	
	Q2152	2SA1576A	Not used	Not used	
	D2151	DAP202U	Not used	Not used	
	D5201-D5204	UDZS6R2(B)	Not used	Not used	
	D5205-D5207	UDZS8R2(B)	Not used	Not used	
	L2151,L3001 Chip Solid Inductor	QTL1013	Not used	Not used	
	X3001 Ceramic Resonator (15.7 MHz)	XSS3004	Not used	Not used	
	CN3001 10p Connector	VKN1414	Not used	Not used	
	CN4107 14p Connector	VKN1245	Not used	Not used	
	JA5201 Socket	BKP1127	Not used	Not used	
	R1019	RS1/16S393J	RS1/16S473J	RS1/16S103J	
	R1020	RS1/16S333J	Not used	RS1/16S333J	
	R1112	RS1/16S2701F	Not used	Not used	
	R1113	RS1/16S4300F	Not used	Not used	
	R1114	RS1/16S1001F	Not used	Not used	
	R2101,R2102,R2157,R2159	RS1/16S103J	Not used	Not used	
	R2103,R2104,R2109,R2110,R3017,R3063,R5222	RS1/16S104J	Not used	Not used	
	R2107,R2108,R3005	RS1/16S0R0J	Not used	Not used	
	R2111,R2112	RS1/16S471J	Not used	Not used	
	R2113,R2114	RS1/16S222J	Not used	Not used	
	R2115,R2116,R3004,R3008,R3009,	RS1/16S473J	Not used	Not used	
	R3012,R3014,R5203,R5204	RS1/16S473J	Not used	Not used	
	R2152,R3007,R3010,R3011,R3016,R3018,R3019,R3023	RAB4C101J	Not used	Not used	
	R2153	RS1/16S220J	Not used	Not used	
	R2154-R2156	RS1/16S470J	Not used	Not used	
	R2158,R3031,R3033,R3035,R3037,R3039	RS1/16S102J	Not used	Not used	
	R3001,R3003,R3015,R3020-R3022,R5223-R5225	RS1/16S101J	Not used	Not used	
	R3002	RS1/16S472J	Not used	Not used	
	R3032,R3034,R3036,R3038,R3040	RS1/16S182J	Not used	Not used	
	R5016	RAB4C104J	Not used	Not used	
	R5205,R5206	RS1/16S331J	Not used	Not used	
	R5217-R5220	RS1/16S223J	Not used	Not used	
	C1111,C2114,C2154,C2157,C3004,	CKSRYB104K16	Not used	Not used	
	C3008,C3010,C3014,C3032,C3055,C5222	CKSRYB104K16	Not used	Not used	
	C1112	CKSQYB225K10	Not used	Not used	
	C1113,C2153,C2155,C3002	CEAT101M10	Not used	Not used	
	C2101,C2102,C2106,C2107,C2110,	CEAT100M50	Not used	Not used	
	C2111,C2113,C2158,C5205,C5206	CEAT100M50	Not used	Not used	
	C2103,C2104	CKSRYB222K50	Not used	Not used	
	C2108,C2109	CKSRYB102K50	Not used	Not used	
	C2156,C3003	CKSRYB103K25	Not used	Not used	
	C5201,C5202	CCSRCH221J50	Not used	Not used	